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No. 62

THE CONCEPT OF VOCATIONAL EDUCATION IN THE THINKING OF THE GENERAL EDUCATOR, 1845 TO 1945

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BUREAU OF EDUCATIONAL RESEARCH
BULLETIN No. 62

1946

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PREFACE

FOR SEVERAL YEARS following the turn of the century, history of education was a major area of study in departments of education, but during more recent years the emphasis has been on the newest pronouncements and expositions of educational theory and practices. A result of this shift of emphasis and attention is that a student generally lacks the background necessary for understanding current thinking and practice in their relation to the thinking and practice of preceding periods. In other words the student typically views the current cross-section of educational theory and practice in isolation from the preceding development.

In this monograph Professor A. B. Mays makes a significant contribution by presenting an organized account of the thinking of the "general educator" relative to vocational education during the period from 1845 to 1945. One who reads the following pages will obtain a background essential for an adequate understanding of current writings in this field. The monograph also affords an illustration of the evolution of educational thinking. The confusion of terminology, the persistence of "old" points-of-view, and the tendency to indulge in critical pronouncements without inquiring adequately into the "ideas" of the vocational educator are typical of the thinking of general educators relative to other areas of our educational development. Finally Professor Mays renders a service by directing attention to a period of our educational history which as yet has received little attention.

WALTER S. MONROE, *Director*



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THE CONCEPT OF VOCATIONAL EDUCATION IN THE THINKING OF THE GENERAL EDUCATOR, 1845 TO 1945

CHAPTER I

INTRODUCTION

CHARLES A. BEARD in a recent book says: "The study of the history of ideas and their enclosing words as used in history is one of the most neglected types of inquiry in the United States."¹ This remark applies with special force to the idea of vocational education as it has developed in the thinking of the general educator during the past one hundred years. The idea of vocational education is at least as old as civilization, and probably is much older, but in the Western World, as a concept of public-school instruction, it has had a very slow and painful growth. The tyranny of the traditional idea of "culture" and "mental discipline" over the mind of the educator of the nineteenth century led to a conception of the school as primarily a place of books and abstract knowledge. To suggest that anything else had an appropriate place in the "sacred halls of learning" was regarded by many educators as sacrilegious. They found it extremely difficult to conceive of any form of specific vocational education in the publicly supported "common" schools. They saw no inconsistency in their being willing to provide elaborate facilities for vocational education in the "learned professions" or "priestly callings" of theology, law, and medicine, and vocational training of another type for paupers and felons, while at the same time refusing to provide obviously needed opportunities for the youth of their communities who desired to enter the necessary but "less exalted" occupations.

Early in the nineteenth century in the United States, however, outside pressures began to be felt by the schools to modify their character so as to become more closely related to the new and changing political, social, and economic life surrounding them. These pressures increased as the vigorous young nation continued to grow with remarkable rapidity. The phenomenal economic expansion during the three decades immediately following the Civil War made the demands for vocational education of some sort in the public school irresistible, and the general educator was forced to consider the problem and to attempt some kind of solution. It was this consideration and this effort to meet social demands for action that stimulated the thinking which this paper attempts to set forth in the words of the educators as they

¹ Beard, Charles A. *The Republic*. New York: The Viking Press, 1943, p. 28.

expressed their ideas in public addresses, papers, magazine articles, books, and public discussions at educational meetings.

No attempt is made to account fully for the ideas expressed, but occasionally suggestions are made as to probable influences which were operating upon the thinking of educators; and interpretations of the expressions of ideas in terms of contemporaneous economic and educational developments are attempted. The limiting dates of the periods used are arbitrarily chosen, and it is difficult to designate each by characteristic concepts because of the overlapping of ideas in the several periods and the persistence of certain concepts running through the whole century under review. However, in general, it seems to be possible to identify certain ideas, which received particular emphasis in the respective periods chosen as divisions of this study.

The major purpose of this review will be achieved if a reasonably clear picture of the development of the concept of vocational education in the thinking of American educators during the one hundred years considered can be visualized in the presentation of the quotations and the accompanying comments of the present writer. Minor purposes of the study are: (1) To attempt to evaluate the ideas expressed by general educators in terms of the needs for vocational education as they existed during the periods in which the expressions occurred, and in terms of what constitutes genuine vocational education. (2) To show the persistence of certain concepts in the thinking of general educators which have played a part in determining their attitudes toward vocational education, and which have affected the development of vocational education to the present time. (3) To indicate the effects of the confusion of terms which seemed to interfere with clear thinking throughout the period studied. (4) To suggest the changing relationship of vocational education to the program of the common, or public, school system during the one hundred years considered in this study.

An extensive amount of material has been examined, and selections have been made on the basis of the importance of the thinker quoted or the significance of the statements as expressive of the best thought of the respective periods. In some instances it seemed desirable to present quotations which are longer than may seem necessary to show attitudes toward vocational education, in order more clearly to indicate the background of the thinking which influenced the concepts of vocational education expressed.

The author wishes to emphasize the point that this study is not an attempt to give the history of vocational education in the public schools of the United States, but it is only an effort to indicate the development of the *concept* of vocational education in the thinking of the general educator during the century from 1845 to 1945.

CHAPTER II

BACKGROUND IDEAS PRECEDING 1845

RECOGNITION of the growing need for some kind of effective education for the "laboring classes" appeared in the thinking of educators before 1845. The "era of reform" was well under way during the 1830's and much was heard about the "elevating of the laboring classes." William Ellery Channing's¹ classic essays entitled *Lectures on the Elevation of the Laboring Portion of the Community* were published in 1840. They were prepared as lectures to be given before groups of apprentices and mechanics to interest them in the "higher things" in life. Much was said and written on this theme throughout the period of industrial and commercial expansion which immediately preceded the Civil War. The thought in the minds of educators and publicists concerning the educational needs of the working classes was not that of specific vocational education but of the cultural "up-lift" of the "lower classes." It was more in the nature of a sentimental desire to reform society than of a realistic concept of improving the vocational competency of workers in the common vocations. It constituted a movement and a way of thinking, however, which became one of the paths by which the later concept of specific vocational education was reached in the thinking of educators.

Another idea in the background of the concept of vocational education as a school enterprise was that underlying the Manual-Labor Movement of the 1830's and '40's. This idea was, strangely enough, just the reverse of that in the minds of the New England intellectuals who wanted to "elevate the laboring classes." This movement was an effort to provide manual-work experiences for students in the classical colleges. The students were to study and recite part of the day and work in the fields and shops the remainder of the day. The chief argument favoring this scheme was that it provided financial support for both students and colleges, but many advocates argued also for the moral value to the students of the work experience. Some even saw in the movement a means of training mechanics. The *Prairie Farmer*, a farm paper of Illinois, in the issue of March, 1841, published a "Plan for a Mechanical School," by John Gage.² This plan was the typical scheme, attempted in the manual-labor colleges generally, of dividing the student body into two equal groups and requiring one group to engage in manual work one-half day while the other

¹ A famous scholar and preacher of Massachusetts (1780-1842). He was graduated from Harvard in 1798 and was a private tutor and later a "regent," or proctor, at Harvard. From 1803 to his death in 1842 he was pastor of Federal Street Church in Boston. He was a great preacher, a famous orator, lecturer and essayist, and an outstanding leader in promoting public education. He was one of the most influential men of his day in the United States.

² Turner, Fred Harold. *The Illinois Industrial University, Urbana, Illinois*. The University of Illinois: Unpublished Thesis, Vol. I, p. 72.

group attended classes. The author of the plan thought such a school would be able to support itself through student labor, and in the characteristic enthusiasm and optimism of the era, he wrote: "It would raise an order of mechanics which would set foreign competition at defiance." This claim was unusual among the advocates of the Manual-Labor Movement, but it is significant to us in that it suggests that in the West there was at that early date some thought of preparing young men for specific occupational competency by means of work directed by a school.

Notwithstanding that the Manual-Labor Movement was primarily a scheme to provide financial support for needy classical colleges and students, the widespread interest in it prepared the way for the concept of agricultural and industrial education for definite vocational ends. It played a part also in the growth of the idea which eventuated in the introduction of manual training into secondary schools. Of this relationship of ideas, Belting said: "By 1840, practically all talk of the manual labor idea had ceased, but the West continued the plan to the close of the national period. After the ideas of Maclure and Neef had subsided, J. B. Turner³ of Illinois College, where the system was in operation for a few years, somewhat changed the arguments to those that should favor institutions from the common schools through the university for the education of the laboring people. His life was spent in continuous service to that ideal until Congress passed the Land-Grant Act for the establishment of agricultural and mechanical colleges, and Illinois chartered the Industrial University. Thus the manual labor idea in Illinois had served as a basis for the more liberal education of all the people, not only for the professions, but for all classes. The final realization of many of the aims of the original advocates of manual labor came with the introduction of manual training in the high schools about 1877."⁴

The enthusiasm of the educational leaders of the 1830's and '40's for training classical students to work with their hands and for "diffusing knowledge and information throughout the mechanical classes" suggests that the schools of the period were not fully meeting the needs of the times. There was, undoubtedly, a complex of influences stimulating the growing dissatisfaction with the traditional classical

³ Jonathan B. Turner (1805-1899) in 1833 became professor of Latin and Greek in Illinois College. He was an outstanding leader in the public-school movement in Illinois. He was one of the organizers of the Illinois State Teachers Association in 1836. He is most famous for his advocacy of an "Industrial University" and played an important part in promoting the Land-Grant College Act by the Congress, and in the establishment of the Illinois Industrial University (now the University of Illinois). He was an inventor, preacher, popular lecturer, writer and an educational and political leader.

⁴ Belting, Paul. *Development of the Free Public High School in Illinois to 1860*. Springfield, Illinois: Illinois State Historical Society Journal, 1919, p. 78.

school program, but the obvious need for skilled mechanics, book-keepers, and farmers to meet the needs of a rapidly expanding economy of a new republic of seemingly unlimited resources is clearly a dominating factor in the changing concepts of the function of schools. The extent of the economic expansion which occurred during the first half of the nineteenth century and its impact on the national life are difficult to grasp today. The growth of manufacturing, and of industry generally, was remarkable. Cubberley refers to this period as "The Industrial Transformation," and calls attention, among other important developments, to the astonishing growth of railroads from three miles in 1826 to three thousand miles in 1840 and to nine thousand by 1850.⁵ The same years saw an equally amazing growth of large towns and cities and the beginning of the long list of important mechanical inventions which were soon to be major factors in making the United States the leading industrial nation of the world. There was also a rapid increase in population between 1820 and 1840, from 9,600,000 to 17,000,000 in the two decades. C. R. Mann said of the years from 1837 to 1857, "In this brief period the total wealth of the country quadrupled, and the per capita wealth more than doubled. . . . Industry flourished on every hand. . . . This unprecedented prosperity and expansion of the mechanic arts made the need of more definite and accurate knowledge of science so apparent that Congress began at last to recognize the demand."⁶

The years between 1820 and 1840 marked the period of greatest controversy over public support of free common schools and saw much state legislation affecting the establishment and maintenance of public schools. During this period Horace Mann⁷ and Henry Barnard⁸ began their historic contributions to the development of free public education in the United States. The demand for technical schools and for train-

⁵ Cubberley, Ellwood P. *Public Education in the United States*. New York: Houghton Mifflin Company, 1919, p. 145.

⁶ Mann, C. R. "The American Spirit in Education," *U. S. Bureau of Education Bulletin*, 1919, No. 30. Washington: Government Printing Office, 1919, p. 36. Mann (1869-1941) was President of the American Council on Education. He taught physics at the University of Chicago from 1896 to 1914. From 1914 to 1918 he was with the Carnegie Foundation for the Advancement of Teaching as research expert in engineering. He became Educational Consultant with the War Department from 1918 to 1925. He was Director of the American Council on Education from 1923 to 1934, and President *Emeritus* from 1934 to his death.

⁷ Horace Mann (1796-1859) was graduated from Brown University in 1819 with high honors. He became a lawyer and political leader but is famous as a great educational leader. He was one of the major forces in the development of the public-school system in the United States, and the first Secretary of the Massachusetts Board of Education. He was one of the greatest of American educational reformers and national leaders of the nineteenth century, famous as a writer and editor of the *Common School-Journal*. After serving in Congress he became, in 1852, President of Antioch College.

⁸ Henry Barnard (1811-1900) played a major role in stimulating and leading the revival of public education, which began during the first half of the nineteenth century in the United States. He was graduated from college in 1830 and devoted his life to the public service. He was primarily interested in education and improvement of the schools. As a member of the legislature of Connecticut he obtained passage of a bill to create a state educational commission, and was made executive secretary. He also later became state "agent" of public education in Rhode Island. He was one of America's greatest educational leaders, and was the first United States Commissioner of Education.

ing in agriculture was very great and resulted in the establishment of several important technical institutions and much general interest in agricultural education. Among the schools started for training in the mechanic arts was the apprentice school of the Society of Mechanics and Tradesmen, which was established in 1820 in New York. In 1825 The Maryland Institute of Baltimore was established, and in 1829, The Ohio Mechanics Institute in Cincinnati. Mann, in summarizing the progress during the first quarter of the nineteenth century, in the direction of developing practical or vocational types of school training, wrote: “. . . progress consisted in the achievement of the ideals that developed during the previous century through trade journals and magazines, county fairs, and several schools for training in the mechanic arts. The conception that training in agriculture and the mechanic arts should be elevated to the rank of a liberal and fashionable study had also taken shape and specific suggestions as to how this might be done had been presented to a number of State legislatures in the hope of securing public support. The young Nation had also finished its apprenticeship to foreign masters and achieved industrial independence. A national individuality was beginning to appear with well-defined attitudes and interests.”⁹

It is not to be wondered at, therefore, to find during the closing years of the first half of the nineteenth century a growing number of educators and publicists who were thinking in terms of a type of education designed to prepare youth for occupational life in a far more definite manner than had previously been conceived. Even the earlier colleges such as Harvard, William and Mary, and Yale, while thought of as primarily concerned with the preparation of ministers of religion, made little or no provision for specific vocational education for this calling. Harvard, which was opened in 1638, and was founded for the education of Christian ministers, did not establish a chair of theology until 1721. By 1845 the new concept of training youth for effective work in the “less exalted” callings was developing in the minds of leaders in both the East and the West. From that time to the present, this idea has been a factor of ever-increasing importance in the evolution of educational thought.

⁹ Mann, C. R., *op. cit.*, p. 29.

CHAPTER III

THE IDEA OF SCHOOLS FOR FARMERS AND MECHANICS, 1845 TO 1875

By 1845 in both New England and the West, civic leaders as well as a few educators were beginning to think about vocational education for farmers and mechanics. Farm land in New England was rapidly deteriorating and manufacturing was growing. In the West the demand for farm products, manufactures, and buildings was growing more rapidly than it could be met. Hence in both sections, with increasing frequency, the utterances of leaders appear which reveal the developing notion of vocational education as a school function. On October 17, 1844, J. A. Wright, speaking before the Union Agricultural Society, in Illinois, said: "It certainly is possible to institute means of better agricultural education. . . . Why not make a part of the child's education consist of instruction in matters which relate to his calling? . . . Some one may reply, What would you do? I would not cast away any of the elementary studies . . . but I would add the study of agricultural chemistry. . . . Then a history of the domestic animals, as the horse, ox, sheep, swine, . . . perhaps others might be added. . . . True science ought to be brought into clearer contact with agriculture."¹

On the 23rd of June, 1845, during the meetings of "a common school convention" at Jacksonville, Illinois, one of the subjects considered was: "How may a system of education be conducted as to afford the best preparation for the various professional, agricultural, mechanical, and commercial pursuits." Professor J. M. Sturtevant, of Illinois College, was asked to report on this matter at the common-school convention to be held in 1846.²

Jonathan Baldwin Turner, of Illinois College, in a famous address first delivered in 1850, and repeated with slight changes in 1851 and in 1853, on "A Plan for a State University for the Industrial Classes," said: "All civilized society is, necessarily, divided into two distinct co-operative, not antagonistic, classes: — a small class, whose business it is to teach the true principles of religion, law, medicine, science, art, and literature; and a much larger class who are engaged in some form of labor in agriculture, commerce, and the arts. For the sake of convenience, we will designate the former the Professional, and the latter the Industrial class. . . . Probably in no case would society ever need more than five men out of one hundred in the professional class, leaving ninety-five in every hundred in the industrial. . . ." He then pointed out that the industrial class "want and ought to have, the

¹ Turner, F. H. *The Illinois Industrial University, Urbana, Illinois*. The University of Illinois: Unpublished Thesis, Vol. I, p. 75.

² *Ibid.*, p. 77.

same facilities for understanding the true philosophy — the science and the art of their several pursuits, (their life-business) and of efficiently applying existing knowledge thereto and widening its domain in their pursuits." He objected to the overemphasis on books in the schools: "The most natural and effectual mental discipline possible for any man arises from setting him to earnest and constant thought about the things he daily does, sees and handles, and all their connected relations, and interests. The final object to be attained, with the industrial class, is to make them *Thinking Laborers*; while of the professional class we should desire to make *Laborious Thinkers*." He later said that the educational needs of the working classes "cannot be supplied by any of the existing institutions for the professional classes, nor by any incidental appendage attached to them as a mere secondary department."³

Turner visualized a school which would closely relate the study of the physical sciences with practical experimentation on farms and in orchards. He wanted to see a school which would expand its offerings to deal with all sciences and arts, with commerce, mining, transportation, and government. Such a school was to serve the working classes in the same manner in which the traditional college served the professional classes. He wanted it to create an "industrial" literature and provide teachers for other similar institutions. His efforts to promote the establishment of a school of the kind he described in his addresses, contributed much to the movement which eventuated in the passing by the Congress of the Land-Grant College Act in 1857 and again in 1862, when the bill was made law by President Lincoln's signature. Turner's attitude was remarkable for a professor in a church college of that time.

It must be kept in mind that throughout the earlier discussions of vocational education the words "industrial" and "industry" were used by nearly all speakers and writers to include all vocations other than the "learned professions."

Henry Barnard, writing in 1845 about the kind of schools needed in the industrial centers of Rhode Island, while not visualizing what is now called vocational education in the specific sense of training in the skills and technical knowledge of a vocation, was thinking of vocational needs as determining the character of the curriculum and the selection of teachers for the worker's children. In describing his concept of such schools he wrote: "The course of instruction in these schools,

³ Turner, Jonathan Baldwin, *A Plan for an Industrial University for the State of Illinois*. Manuscript, University of Illinois Library. p. 371.

both in primary and higher grades, should be framed and conducted, to some extent, in reference to the future social and practical wants of the pupils. It should cultivate a taste for music, drawing and other kindred pursuits, not only for their practical utility, but for their refining and elevating influences on the character, and as sources of innocent and rational amusement after toil, in every period of life, and in every station of society." He then argued for the great importance of drawing, both for cultural and vocational values. In support of his argument, he said: "I am assured by a gentleman familiar with the business, that in the calico printing establishments of this State, more than sixty thousand dollars are expended annually upon different departments of labor, to success in which the art of drawing is indispensable. And this class of workmen employed cannot acquire the requisite skill and intelligence, in any practical schools of the arts among ourselves. If Rhode Island is to compete successfully with other countries in those productions into which a cultivated taste, and high artistic skill enters, the taste where it exists must be early developed by appropriate exercises in the public school, and opportunities for higher attainments be offered in a 'school of the arts.'

"In the higher departments, or schools, there should be exercises in the mathematical studies calculated to familiarize the scholar with the principles of many of the daily operations in the mills and work-shops, and thus lay the foundation for greater practical skills, and for new inventions or new combinations and applications of existing discoveries.

"To supply obvious deficiencies in the domestic education of girls, plain needle work should be taught in the primary schools, as is now done in all the schools of this grade in the city of New York; and in the higher departments, some instruction should be given in physiology."⁴

While Barnard was far in advance of the educational thinking of his time, and this expression of his concept of the type of school needed by the children of the "working classes" is a definite advance toward the idea of specific vocational education, it is primarily an aristocratic rather than a democratic concept of public education. It suggests a special kind of curriculum for the children of laboring men, seemingly based on the fact that they belonged to a particular social class rather than on the individual needs of children regardless of the "class" to which they belonged by birth. This manner of think-

⁴ Barnard, Henry. *Report on the Condition and Improvement of the Public Schools of Rhode Island, 1845*. Providence, Rhode Island: B. Cranston & Co., 1846, p. 74-75.

ing seems to be characteristic of the educational thought of the era from the founding of the Republic to the close of the Civil War.

There was little thought given to the development of specific vocational education aside from the deep interest shown by a few educators in the need for the creation of colleges for the teaching of agriculture and the mechanic arts. During the 1850's there were a few educators and a somewhat larger number of agricultural leaders, editors, and other public men, who were agitating for agricultural education, and usually they included the training of mechanics as part of the schemes they proposed. One of the most influential expressions of concern over the lack of agricultural education was the often quoted "Premium Essay on Agricultural Education," by Edmund Ruffin, which was written in 1853. It was generally reprinted throughout the nation and seemingly exerted much influence in the discussions preceding the congressional action on the land-grant college bills. In this essay Ruffin said: "When so much study and research are required for attainments in the science, so much skill and judgment for the art, and so much ability and varied talent for the business in general, it scarcely needs proof that no other pursuit more needs instruction for its young votaries than does agriculture. Yet it is almost the only business or profession which is without any regular and ordinary instruction, and in which every learner is without a teacher. Agriculture is not only not taught, and without means for being taught, but it is the only science or art which is in that destitute condition."⁵ He then argued at great length for state support for agricultural education. While this essay, written in the flamboyant rhetoric characteristic of that day, is not strictly accurate, particularly with reference to the vocations other than agriculture, it indicates the kind of thinking which was beginning to find expression here and there throughout the nation concerning the need for vocational education.

It is remarkable, however, that the leading educators of the 1850's and '60's seemed, for the most part, indifferent to the movement for the establishment of agricultural and mechanical colleges. The idea of such a college was clearly revolutionary from the standpoint of the then prevalent concept of secondary and collegiate education, yet it is extremely difficult to find even a reference to the proposals for land-grant agricultural and mechanical schools on the part of educational leaders. One would expect to find frequent references to the new colleges which were to be established immediately after the signing of

⁵ Ruffin, Edmund. *Premium Essay on Agricultural Education*. Executive Committee of the Southern Central Agricultural Association, 1853, p. 9-10. (University of Illinois Library Pamphlets, Vol. XI, Cat. No. 041 F144 V26.)

the Land-Grant College Act in 1862 by President Lincoln, but in the proceedings of the American Institute of Instruction for the sessions of 1862 and 1863 not so much as an incidental reference appears. Yet this was one of the most important educational organizations in the United States at that time. The only reference to anything even remotely related to the idea of vocational education which occurred during those two conventions of educators was an incidental reference to "industrial and commercial arts" in a very long, wordy oration by J. M. Gregory, Superintendent of Public Instruction of Michigan. In the florid style of the times, speaking on the subject "The Problem of Education as Comprehended Under the Threefold Relationship of Man to Nature, to Society, and to God," after discussing in involved and flowery language almost every possible phase of education he said: "Of the training in the industrial and commercial arts, and of instruction in political duties, I can offer no discussion, though these also be within the lines of social destiny, and hence of social education.

"But I cannot pass thus lightly the training by which the child is to be fitted to enjoy society, to find happiness in its daily intercourse, and to grow up to a grander power and beauty by its ministrations. . . ."

The importance of the Morrill Act, or Land-Grant Act, as an educational measure and as a real beginning of vocational education for occupations other than the learned professions seems to have occurred to few. Its passage was generally ignored by newspapers, educators, and even by farm paper editors. Carl L. Becker says: "As late as 1891 the founders of *Poole's Index to Periodical Literature* could find no more than six articles on the subject that were worth listing. Indifference to the act is reflected in the general belief that not many states would think the value of the grant worth the obligations they would assume in accepting it. Even Horace Greeley, who defended the act with more spirit than most, seems to have shared this belief: he could only say that the act would have been worth while if even five states took advantage of its provisions."⁶ A few educated men of prominence were much opposed to establishing agricultural colleges and expressed their contempt for such an idea in various striking phrases. Mann, for instance, quoted Joseph Henry, Director of the Smithsonian Institution, as saying that the introduction of agricultural studies "would convert a scientific institution into a cow pasture" and considered the statement as expressing the prevailing feeling of college teachers of the period.⁷

⁶ Becker, Carl L. *Cornell University — Founders and the Founding*. Ithaca, New York: Cornell University Press, 1943, p. 37.

⁷ Mann, C. R. "The American Spirit in Education," *U. S. Bureau of Education Bulletin*, 1919, No. 30. Washington: Government Printing Office, 1919, p. 36.

This indifference was doubtless due in part to the general pre-occupation with the Civil War, but chiefly it was due to the controversial features of the Act with reference to the land grants involved. The Act allotted to each state thirty thousand acres of public land for each member of congress from a given state for the establishment and maintenance of an agricultural and mechanical college. It was a day of land speculations on a grand scale and there was much bitterness among the states over their respective shares of the public land, all of which were located in the western states. The debates in the congress over the Act were almost wholly on the matter of the distribution of public lands and not on the educational ideas involved.⁸ Henry Pritchett, writing of this neglect of educational considerations in the debates on the Act, says: "Perhaps no circumstance of the original Morrill legislation was more remarkable than the entire absence of any educational conception as to what sort of colleges were to be created out of the money supplied by the central government. Indeed, a large proportion of the members of Congress did not expect institutions of college grade. This whole legislation . . . primarily educational in its scope and in its consequences, was carried out from the beginning to the end with almost no consideration of the educational problems involved. It is not too much to say that for the first fifty years of their existence the colleges thus established did very little to advance the interests of agriculture or to minister to the needs of the young men and young women on the farm. It is only within the last few years that they have addressed themselves directly to this problem."⁹

Notwithstanding the apparent indifference of educators generally to the educational significance of the creation of agricultural and mechanical colleges and the earlier failure of the manual-labor movement, both these events in educational history seem to have played an important part in the later development of the concept of specific vocational education as a school responsibility. They supplied concrete expressions of a revolutionary sort of thinking concerning the experiences which might be provided by a school for the preparation of youth for adulthood duties. Furthermore, they pointed the way toward

⁸ For a thorough and scholarly discussion of the land distribution emphasis in Congressional debates on the Morrill Act, see Paul Gates' "Western Opposition to the Agricultural College Act," *Indiana Magazine of History*, 37:116, March, 1941.

⁹ Pritchett, Henry. "Introduction" to J. F. Kandel's *Federal Aid for Vocational Education*. New York: Carnegie Foundation for the Advancement of Teaching Bulletin No. 10, 1917. Pritchett (1857-1939) was a scientist, teacher, and college administrator, and director of the U. S. Coast and Geodetic Survey. Later he was President of the Massachusetts Institute of Technology, and in 1906 became the first president of Carnegie Foundation, which position he held until his retirement. He was a noted leader for many years in American education. He was the first president of the National Society for the Promotion of Industrial Education.

a drastic modification of the traditional monopoly of the classics as the only adequate means of educating young men. Many voices were raised during this early period against the dominance of the classics and against the emphasis on the notion that the study of Latin and Greek constituted the best means of developing the abilities needed by the rapidly expanding national life. The protests, however, rarely included specific suggestions for a better type of education. After 1862 concrete examples of a type of school with a new emphasis made easier the acquiring of a more comprehensive view of the possibilities of school training.

Other innovations in educational thought were to intervene before a clear-cut concept of specific vocational education as a school responsibility was to appear, but the first move in that direction had been made by the close of the Civil War. Mann, referring to the importance of the establishment of the agricultural and mechanical colleges and the appearance of several technical institutes and apprentice schools as a step in the direction of developing needed vocational education in American schools, said: "It thus appears that by 1860 a number of schools for training in industrial arts had been actually established and the educational principle that must guide in all such enterprises had been clearly formulated. Efforts at public support had been rewarded by the passage of the Morrill Act. The foundations of a distinctively American system of vocational education had been laid in spite of the fact that widespread social sanction for this type of training had not yet been won. Progress in this movement was notably accelerated by the Civil War, which dissolved many old prejudices and made clear the importance of industrial production and tool power in the development of national strength."¹⁰ It must be noted that Mann's use of the term "industrial arts" did not refer to the modern school subject so designated, but rather to what was more commonly called in 1860 "the mechanic arts."

A notable example of a concept of education pointing directly toward vocational education, but which was not immediately concerned with public education, was that of "polytechnic" schools. The idea of these schools grew partly from the growing emphasis on science and partly from the amazing industrial developments in the United States after the first quarter of the nineteenth century. "Polytechnic Institutes" have played a major role in American education, and the ideas underlying their creation have unquestionably influenced the growth of the modern idea of vocational education. The basic notion pro-

¹⁰ Mann, C. R., *op. cit.*, p. 47.

ducing this type of educational program was clearly expressed by Charles O. Thompson, President of The Worchester County Free Institute of Industrial Science, in 1864. He said: "This institution was organized under the influence of a belief that, after all that has been done in technology, there is still need of a system of training boys, broader and brighter than 'learning a trade,' and more simple and direct than the so-called 'liberal education'; that, while the boys should be thoroughly trained in all the essentials of a polytechnic course, they should also find a workshop open where they could get all the essentials of a trade so that upon graduating, they should have sufficient knowledge of machinery and handicraft to enable them to earn a living while pushing their way up to the highest positions for which nature and their training had qualified them."¹¹ This illustrates the revolutionary character of the thinking of at least a segment of the body of educational leaders of the times, and it is remarkably close to present-day concepts of vocational education of less than college grade.

An increasing number of educators during the 1870's were thinking in terms of the requirements of American life as a measure of the value of the work of the schools, and this new way of thinking rapidly grew in importance as the pressures of the remarkable economic expansion of the postwar era became increasingly felt by the schools after 1875.

¹¹ Bennett, Charles A. *History of Manual and Industrial Education 1870 to 1917*. Peoria: The Manual Arts Press, 1937, p. 311-12.

CHAPTER IV

THE IDEA OF CURRICULUM REFORM AND GENERAL VOCATIONAL EDUCATION, 1875 TO 1885

THE IDEA of a type of school education designed to prepare boys and girls for successful vocational life appears with growing frequency after the close of the Civil War. In the mind of the educator this idea presented many difficulties, for he was as yet not able to conceive a radical revamping of traditional courses and curricula. Something was wrong and that something seemed to him clearly to be the failure to prepare youth for its economic responsibilities. Since the most obvious shortage of trained men was in the rapidly expanding industries, the discussions among educators for many years after 1875 dealt chiefly with the needs and procedures of industrial education. Homemaking education, business education, and agricultural education were not neglected in the thought of those urging a more practical education, but the major emphasis seems to have been on preparation for the "industrial pursuits." It is important to note that because of the confusion in terminology great care is necessary when reading the words of the leaders of those years. The word "industrial" frequently is used to mean vocational, and occasionally to mean agricultural.

One evidence of the growing interest in the need for vocational education and for the clarification and development of thought on that subject is the establishment of the "Industrial Section of the National Education Association" in 1876. After electing officers, "On motion of Professor S. R. Thompson¹ it was agreed that the following class of persons shall be eligible to membership in the Industrial Section: All instructors and officers of Agricultural, Mechanical, and Polytechnical Schools, or a University having such departments." This basis of membership suggests the areas from which the leadership in the efforts to expand the existing program of education was to come during the decades immediately following. However, it would be erroneous to conclude that the members of this section of the National Education Association regarded themselves as specialists in vocational education. They were, rather, general educators engaged in a *new* educational project and interested in trying to improve American education. Their papers and addresses clearly indicate that they thus thought of themselves. The very existence of this section, and the growing frequency,

¹ Samuel Rankin Thompson (1833-1896) was a teacher and school superintendent until 1868, when he organized the state normal school at Marshall College in West Virginia. In 1871 he became professor of theoretical and practical agriculture at the University of Nebraska. He was the first dean of the College of Agriculture from 1872 to 1875. He was head of Nebraska State Normal School, Peru, and State Superintendent of Public Schools. Later he returned to the university, then to Westminster College as professor of physics, where he remained to his death.

from 1876 on, with which speakers before general sessions of the National Education Association dealt with "industrial" education indicates the importance attached to the developing concept of vocational education in the minds of educators.

The addresses and discussions of the Industrial Section of the National Education Association at the convention of the year following its organization are interesting as indicating something of the trend of the thinking of educators of that period of American educational history. The discussions expressed two distinct points of view, though the differences were not irreconcilable; (1) the common school must give a solid foundation of general education which prepares for all vocations, and (2) the school should not teach trades but should give fundamental manual training in "arts" useful in many trades. Some speakers wanted girls taught how to cook, sew, and keep house. It is significant that at this session President Runkle² of Massachusetts Institute of Technology explained the "Russian System" of hand and technical training, because this Russian System was the basis of the procedures of the new type of schoolwork soon to be called "Manual Training" and which was to constitute a storm center of educational discussions for twenty years or more. Indeed, it was out of the thinking and practices of advocates and teachers of manual training that a later controversy (beginning in the early 1900's) produced the modern vocational-education movement.

A noteworthy feature of the program of the Industrial Section at the 1877 convention was the frequent reference in laudatory terms to the address before the general session of the National Education Association by the President, M. A. Newell, Superintendent of Public Instruction of Maryland. This is a significant address as an expression of the thinking of a large number of educators regarding the vocational education of American youth. After pointing out in vigorous language the great need for the education of the "working classes" and expressing horror over a recent riot by labor union members while on strike, he suggested that such riots would not occur if laborers were properly educated. He condemned the existing curriculum of the school and thought the fact that only "one in one-hundred ever finishes high school" should be taken into consideration by curriculum makers. Each school level, he urged, should prepare for a life of labor rather than for the next level only, and the abstract parts of school subjects should be delayed to the upper years of the curriculum.

² John D. Runkle (1822-1902) was the first secretary of the Massachusetts Institute of Technology, in 1862. From 1870 to 1878 he was president. He exerted great influence in the development of technical and engineering education. He introduced important reforms in engineering education and played a major role in the "manual training" movement in the United States.

He then said that apprenticeship had been abolished by labor unions, and boys were not taught to labor any more, and concluded with the following interesting statements: "Further, and finally the public school system cannot be regarded as complete, till to its departments of language, mathematics, science, etc., there is added another, to which these are but stepping-stones — a department of manual labor.

"Few will deny this in theory; fewer still would be willing to carry it into practice. The State undertakes to educate the children of the people in order that they may become good citizens. But they cannot be good citizens unless they are useful citizens, and they cannot be useful citizens unless they have learned to work; therefore the State should teach them to do something as well as to know something. 'Granted, but,' we are told, 'the thing is impracticable. The State cannot teach farming, and carpentering, and shoemaking.' So ocean steamship navigation was pronounced impracticable forty years ago; so the sewing machine was impracticable thirty odd years ago; so the Atlantic telegraph was impracticable twenty years ago; so ten years ago it was pronounced impracticable in England to give a primary education to all the children of the poor.

"But all these things are now accomplished facts. The word 'impracticable' is in the Dictionary still, but its definition has been changed. It now means difficult and costly. That is all.

"But, says an objector, it is the business of the parent and not of the State to give a child a trade. Herbert Spencer goes farther and says it is the business of the parent to educate the child, and the State has rightly nothing to do with education. Where are you going to draw the line? The State may teach the art of writing but not of printing; the art of drawing but not of woodcutting; the art of composition but not of bookbinding.

"Put it into plain English and say the State must not venture to teach anything by which a young man can make a living; yet, even here you would be inconsistent unless book-keeping (by which many graduates of our public schools do make a living) were stricken from the curriculum.

"There is no escaping from the argument that if the State for her own protection is bound to interfere to prevent children from growing up in ignorance, she is equally bound to prevent them from growing up in idleness. If parental duties and obligations are insufficient to meet the one case, they are equally insufficient to meet the other."

At this point the unwary present-day reader would be convinced that Mr. Newell was far ahead of his day in his conception of the

obligation of the public school to provide vocational education for all its pupils, but it must be remembered that he was speaking in 1877 and therefore the succeeding paragraph should give no surprise. He said next: "Do I think it possible to *attach* workshops to our public schools? Certainly not. But I do think it possible to have public workshops where boys can learn trades as well as public schools where they can learn letters. And just as we transfer the few from the State school to the State college where they learn to be thinkers, I would transfer the many from the city school to the city workshop where they would learn to be workers." He then suggested that if this be too drastic a step, then some sort of apprenticeship should be arranged for those who need it, "while at the same time the incomplete literary education of the learner should be carried on as far as might be necessary and proper."³

The educators of the 1870's were, with a few exceptions, convinced of the need for vocational education by the "laboring classes," but to meet this need nothing must be done which might affect the sacrosanct character of the "sacred halls of learning" wherein only "literary education" should be found. Hence where vocational education was indicated as desirable for those of the "laboring classes" they might well be "transferred to the city workshops." The discussions in the Industrial Section of the National Education Association during those years were concerned largely with proposals to adapt the traditional curriculum to the needs of the "working classes." They were not thinking of providing, as part of the program of the common schools, specific vocational education. Some of the speakers taking part in the discussions in this section were bitterly opposed even to trying to adapt the curriculum to the needs of those who were not going on to higher education because, as they insisted, "to develop character and train the intellect" is the best training for the laborer.

Throughout the period from 1875 to 1885 there was a growing insistence upon the need for a more practical form of general education. But there were few suggestions of a specific character for meeting the needs of youth for vocational training that contemplated a unified school program, by means of which both the "professional classes" and the "laboring classes" might be educated in an atmosphere of democracy. Not until the manual-training movement began to attract attention did the thinking of educators focus on a definite program considered by many to meet the new needs. This movement served to crystallize thinking in patterns definitely favorable to, or opposed to, the proposed

³ Newell, M. A. "The President's Address," *Proceedings of the National Education Association*, 1877, p. 6-15.

means of adding a "practical" type of instruction to the existing curriculum.

To get an adequate insight into the thinking of educators of this era it is important to review the papers and addresses of a number of leaders. Mr. Ezra S. Carr, State Superintendent of Public Instruction of California, speaking before the Industrial Section of the 1876 Convention of the National Education Association, on the subject "The Industrial Education of Women," after referring to "one of the strongest claims which labor is now making upon Popular Education, claims which . . . are expressed in a growing dissatisfaction with the results of our public-school work," he said, in part: "Intelligent criticism of this work has reached us from experienced teachers who recognize the difference between scholarship and education, whose pupils return to them with the pertinent and sometimes piteous inquiry, 'What shall we do for a living?' and also from eminent industrialists, trained in the learning and culture of the higher institutions, who realize the unfitness of this learning and culture considered as the only armor with which the average American youth of either sex is to fight the battle of life. What Mr. Lowe said of the Oxford graduate, 'it is astonishing how little he knows if he has stuck to his studies,' voices the complaint of many a farmer and mechanic, who with infinite self-denial and sacrifice has given his son or daughter a good education. Powerful organizations of agriculturalists and mechanics have resolved 'that our public schools require to be made more practical,' without adequately understanding the difficulties that will appear in carrying out the proposed changes." He then said that any teacher who was confronted with making education more practical and useful for the 95% who never go beyond the public school "would find a way." "He would decide upon a course which, left off at any point, would yet have an immediate practical value, as helping to the self-maintenance of every individual. In our country, comfort and culture must inevitably go together." He then, after quoting census figures, said: "Thus we see that agriculture fills ten times as many mouths as commerce, twenty times as many as manufacturing, forty times as many as railroads, or as the number of bread earners enrolled in the so-called learned professions. Yet our whole system of public education is professional rather than industrial."⁴

This is a typical expression of a rather widespread dissatisfaction with the work of the schools, but like most such criticisms of the times, it exhibited only a most rudimentary understanding of how to remedy

⁴ Carr, Ezra S. "The Industrial Education of Women," *Proceedings of the National Education Association*, 1876, p. 240-41.

the deficiencies. It seems evident that a direct attack on the problem of supplying vocational education was not in his thinking. It must be remembered that his use of the word "industrial" was the usual one of that era and should be translated, "vocational."

The same kind of thinking was indicated in another paper, read before the Industrial Department of the same meeting, in which the author said: "Every child's education is deficient who has not learned to work in some useful form of industry. The pernicious notion that labor is menial, the tools of the trade and the farm are badges of servility, ought to be refuted in our schools where our youth should be taught the dignity and necessity of labor, its vital relation to all human excellence and progress, the evils of indolence, the absurdity of the widespread passion for city life, and aversion to manual labor. A practical knowledge of some industrial pursuit is an important element in intellectual culture."⁵ But it is not clear that he would do more than *talk* about the "dignity and necessity of labor" in the school itself. The time was not quite ripe for meeting the need by means of school work which provides "learning by doing."

The same sort of thinking concerning the necessity for a radical change in the preparation of youth for the changing economic life, but with no thought of the school boldly facing its responsibility in the matter, is this characteristic expression of the church-school educator. It is taken from an article in *The Catholic World* for January, 1879. Writing on the topic "Technical Education," the author cautiously conceded that "considering the fluctuating nature of society and the strong probability of each individual's being at some time or other in circumstances in which his or her hands and brains will be the only capital left, it would be prudent for everyone to perfect himself in one branch of remunerative work and to choose that branch for which he has the most natural aptitude."⁶ One is led to ask how, when, and where. But the thought of 1879 had not quite got round to those questions.

It is of interest to note that there is evidence indicating that the same kind of thinking with reference to vocational education prevailed in England as that expressed by many American leaders during the '70's and '80's. It was there, as here, a concern for doing something to provide more trained workers but little thought of requiring the schools to accept responsibility for specific vocational training. A report of certain comments of Huxley at a meeting of the Society of Arts in London in 1879, said that he expressed the hope that the city guilds would soon do something "real and practical" on the matter of "technical educa-

⁵ Northrup, B. G. "Labor and Education," *Proceedings of the National Education Association*, 1876, p. 241.

⁶ Salicis, G. "Technical Education," *Catholic World*, 28:512, January, 1879.

tion." He said the old system of apprenticeship "was as thoroughly doomed in the different kinds of ordinary handicrafts as it had been long doomed in physic. . . ." "We ought to bring within the reach of the young people who were employed in our great manufactures the means of carrying on their education in the particular branches of business with which they were respectively occupied beyond the time during which the necessities of practical life obliged them to be at work in the workshop—that is to say, for a period corresponding virtually with what used to be their apprenticeship." He advocated the establishment of trade schools in the great industrial centers.

He further said the guilds should establish institutions "out of their large funds" for training industrial teachers, and that there was not only a total absence of schools to which apprentices could resort, but there were no teachers competent to teach in such schools even if they were established. He later said, "It would be a scandal and a robbery if a single shilling were asked for out of the general revenues of the country for technical schools. The City of London Guilds possessed enormous wealth which had been left to them for the benefit of the trades they represented. If the people did not insist on the wealth being applied to its proper purposes they deserved to be taxed down to their shoes"; and he expressed the hope that the guilds would soon be compelled to provide technical education, if they continued to neglect this service to the country.⁷

The same year (1879) at the annual convention of the American Institute of Instruction, "John Hancock, Ph.D." of Dayton, Ohio, gave an address on the subject "Piece-Work." It is clear that by "piece-work" he meant a high degree of specialization of process and not what is now meant by the term. He began by recounting the growth of specialization in industry and, as he thought, its bad effects upon workers. Then he applied the same argument to the tendency toward "piece-work" in education. His presentation exhibited much the same sort of misinformation concerning work in the industries so often met in the pronouncements of "academic" educators today. He said, for instance, "It is often complained that boys no longer, as in the good times bygone, learn trades; and this new state of affairs is not unfrequently charged to the public-school system, which, it is said, by over-educating the poor, has destroyed all inclination for manual toil. But the fact is, there are now no trades, in the old-fashioned sense of the word, to be learned. A boy cannot now, if he wishes it, apprentice himself to a master for a term of years, to learn to build a house, to hew and frame its timbers, to plane its weather-boarding and flooring, to make

⁷ "Report of a Meeting of the Society of Arts in London," *Nature*, 21:139, December, 1879.

its sash and doors. This work is nearly all done by various machines, and all that remains for the share of the boy is to stand by and guide the machines; and the experience of but a few weeks is all that is necessary to fit them to perform their brainless tasks. At no former period, perhaps, have mechanics been better furnished with book-learning, but they now labor under the drawback of lack of that kind of instruction, which, in the trade-learning days, had such a stimulating effect upon the thinking powers as not unfrequently to approach in breadth and wholesomeness the training given in our schools." He then deplored the "sad degeneracy in work and men which must constantly increase unless counteracted by outside educational influences." He later said: "We ought not so much to educate for that toiling life, whose energies are given chiefly to money-making, as for that other life in which man is most completely master of himself, and into which is crowded most of his pleasures and his pains. If he has not been so educated that his life is made radiant by the love of the society of wise and virtuous men, of all that is beautiful in nature and in art, and by the constant companionship of noble thoughts, then must he be classed among Aristotle's foolish, no difference how much of wealth or fame he may have acquired."⁸

While this statement betrayed an amazing ignorance of the situation in the trades both of 1879 and of "the good times bygone," as well as the practical possibilities of educating the working boys of his day so that they would be "made radiant by the love of the society of wise and virtuous men," the address is significant because it expressed the sort of educational thinking so very common during the 1870's and '80's. Strangely enough it did not seem to have occurred to many of those who spoke most dogmatically about the vocations and their training needs to make a firsthand investigation and get the facts. It seems to be characteristic of the educator mind of those years to assume that it possessed the requisite knowledge of facts without investigation and that the solution of the vocational-education problem, as they defined it, could be found in providing more "culture" for the laboring classes.

Barnas Sears,⁹ the noted preacher and educator, in an eloquent address in 1880 on "Fifty Years of Educational Progress" went a bit

⁸ Hancock, John. "Piece-Work," *Proceedings of the American Institute of Instruction*, 1879, p. 149, 154. The American Institute of Instruction was organized in Boston, Massachusetts, August 19, 1830. President Francis Wayland, of Brown University, was the first president. It was for many years one of the most potent educational forces in America. Its membership included some of the greatest educators of the nineteenth century. It has been, however, chiefly a New England organization throughout its history.

⁹ Clergyman and educator of note (1802-1880). In 1829 he became professor of languages in Hamilton Literary and Theological Institution (now Colgate University). He studied in Germany from 1833 to 1835. In 1836 he became professor in Newton Theological Institute. He was also an editor and writer of note. In 1848 he became Secretary of the Massachusetts Board of Education, succeeding Horace Mann. In 1855 he became President of Brown University. Perhaps he is best remembered as the general agent of the Peabody Education Fund, which position he accepted in 1867. He was one of America's great educational leaders.

further and suggested that much economic distress could be relieved not only by training and educating workers to a higher level but by giving cultural education to more people, thus causing them to desire and purchase more products of the arts, thus lifting the economic and cultural level of the whole people.

He suggested that the growing unemployment among the lower classes could be solved both here and in Europe if the "idle laborers" could be given cultural education. They could then become efficient craftsmen. "How then shall we give remunerative employment to the starving poor?" he asked, and answered: "By multiplying and expanding the branches of industry, and educating a larger class to practice arts hardly known to us now. Luxury and the love of ornamentation are growing with our growth. These will be paid for, and the money will go to the places where the articles demanded are manufactured. France is enjoying the monopoly now. Why? Because she has eight times as many pupils receiving secondary instruction as England, Scotland, and Ireland combined. The ablest statesmen and economists in the different countries are now considering higher education as the remedy of the evil felt by all. The question is rising in importance every day in our country. It is only necessary to turn operatives into adepts by a higher degree of culture and by systematic training, as in France, and the millions sent to that country will be retained at home, and every qualified person, male or female, will find employment and the means of competence. Even Ireland might be relieved of its distress, and if it could be redeemed from its ignorance and its swarming population, be qualified to practice the finer industrial arts."¹⁰

This naïve proposal for solving the economic and social problems of the day is surprising when the prominence of its author in the educational world of that period is considered. It is but further evidence of the unbounded faith of educators in cultural education to meet the rapidly changing needs of the people generally, and of those entering the "less exalted callings" in particular. To the educator of the 1880's it was almost unthinkable to try to make a direct attack on the problem of the vocational preparation of the masses of youth. They constantly strained to find a way to meet the growing discontent with the school program without providing the obviously needed specific vocational education. Another interesting illustration of this attitude so often expressed was concisely stated in an address by W. A. Mowry, President of the American Institute of Instruction, during the convention of 1881. Speaking on "The School Curriculum and Its

¹⁰ Sears, Barnas, "Fifty Years of Educational Progress," *Proceedings of the American Institute of Instruction*, 1880, p. 113-14.

Relations to Business Life," he said: "The fundamental design of the school, then, is to develop humanity; to cause the mind to grow; to deepen and to broaden and to place all these increased powers in the control of the man; to give him a broader scope, a higher reach, and a stronger grasp.

"If I am right, then the school should not teach a trade, but those principles which underlie the trades; not how to peg or sew a shoe, and thereby earn one's daily bread, but being a shoemaker, how to do better work and do it cheaper; not how to perform the labor of a farmer, but being a farmer, to be a *better* farmer than if he had never been at school; above all, being a *man* to be wiser, a more useful, a more successful, and a *better* man . . . less like a demon, less like a brute, more like an angel, more like God."

Later in the address he descended from the mountaintop of eloquent oratory and remarked, "As the people become more intelligent, broader minded, their modes of doing business improve; they do more business, do it better, and produce results at less expense. Thus will the high school affect the business life of a community."¹¹

As oratory these utterances are excellent and doubtless fully measured up to the highest standards of public speaking of the time. One is left, however, with an unanswered question which seems important. Does not "being a shoemaker," "being a farmer," imply *becoming* a shoemaker and becoming a farmer? The real problem needing solution in 1881 was *how to become* a farmer or shoemaker. It is remarkable the extent to which the educator of that day struggled to avoid the real issue and to deny the responsibility of the school for aiding the youth of the land to become farmers, craftsmen, salesmen or skillful homemakers. It is all the more remarkable when one recalls that it was a period of tremendous economic expansion, when both business and manufacturing were struggling desperately to find trained men to operate the machines of the factories, to build railroads, bridges, and the greatly needed houses and commercial structures of all kinds for the rapidly growing cities of the nation. In its desperation, industry finally had to turn to Europe, where well-developed programs of vocational education had long been established, and induce thousands of skilled workers trained in the trade and technical schools to come to this country. Meanwhile the educators of America continued to conceive the function of the public school as being that of bringing "culture" to those who, "being shoemakers," might become "better shoemakers," because of the culture provided by the schools, which most of them never attended.

¹¹ Mowry, W. A. "The School Curriculum and Its Relations to Business Life," *Proceedings of the American Institute of Instruction*, 1881, p. 25-43.

That the rapidly expanding economic life of the nation was a large factor in the increasing attention given by educators to the urgent need for vocational education can not be doubted. Some of the educational leaders during the 1870's and '80's strongly resisted the pressure from commerce and industry by frantically defending the classics and the traditional theories of cultural education, while others vigorously proclaimed the need for what they variously called "industrial education" and "technical education." Usually they meant vocational education by the term "industrial education" and industrial education by the term "technical education." Among the outstanding leaders of the years from 1875 to 1885 none was more often heard on the subjects of "technical" and "industrial" education than E. E. White,¹² President of Purdue University from 1876 to 1883. He appeared on numerous programs of educational conventions, often engaged in informal discussions, and in other ways made his ideas known to the educators of America. He argued vigorously for vocational education, but vigorously opposed introducing shopwork into the existing schools. The modern student is amazed, after carefully reading his lectures, to find him unalterably opposed to vocational-industrial education in the "common schools." The frequently expressed idea of the educator of that day seems to have been that by some means, not clear to him, the traditional cultural subjects might be made to do the work of vocational education, but if not, then special schools not closely related to the "regular" schools should be established.

Both because of his prominence as a leader in American education and the significance of the ideas he expressed, E. E. White's comments on the need for "technical" education and his objections to teaching trades in the established schools deserve extended quotation in this paper. In an address before the American Institute of Instruction in 1878, speaking on the subject "The Education of Labor," he said: "Aristocracy has always opposed the education of the people. The aristocracy of Caste asserts that the great majority of mankind are born to serve, and, since the less intelligent the servant, the more docile the service, it declares that education unfits the children of toil for their lot in life." He asserted that capital does not want laborers educated because it increases their desire for higher wages and better conditions. "The present condition of the country," he said, "gives these dogmas a fresh interest, and the air is filled with their assertion in some form or degree. The late rapid multiplication of the industries

¹² White (1829-1902) was one of America's great educational leaders. He was superintendent of city schools, state superintendent of schools, in Ohio, editor of the leading state educational journal and president of the state teachers association. In 1886 he was superintendent of Cincinnati schools. He was President of the National Education Association and of the National Council of Education. He was nationally recognized as a great scholar and churchman.

of the country opened numerous positions demanding intelligence more than muscle. The opportunity thus offered to obtain higher wages, if not to find a short road to competency, has resulted in a growing disinclination to obtain a living by hard work. The recent check to the prosperity of the country¹³ makes this condition of affairs painfully evident, and the aristocracy improved the opportunity to renew its assault upon popular education."

He reiterated the arguments so common during the '70's and '80's, already stressed in this paper, that the "laboring classes" must be better educated, but it must be cultural education, because specific vocational education must not be offered in the common schools. He was greatly influenced in his thinking by the economic situation and stressed its effects on the educational needs of the day. In outlining some of the forces affecting labor, he said there are several factors which serve to produce the growing "disrespect for labor." "The first of these is the influence of slavery, which once permeated the entire country with degrading views of labor. It will take a hundred years to recover from the influence of the slave code, with its 'mudsill' theory of labor." He then mentioned immigration of "ignorant and cheap workmen, crowding out intelligence, or subjecting it to unpleasant social conditions." Then, "A third cause is the rapid development of the country, opening a multitude of employments, and bidding for bright and intelligent youth to fill them, thus causing a rush from the farm into the towns and cities, which have sprung up on every hand, as if by magic. How many different employments have thus been created, and what a multitude of desirable positions have thus been opened to American youth! Is it any wonder that the intelligent and ambitious have been attracted to them? Doubtless many a good farmer or mechanic has been spoiled, to make a poor lawyer or an unsuccessful merchant; but, on the contrary, all the professions and all departments of trade have been enriched and vitalized by contributions of brain power and character from the farm and the shop. The tide is now setting the other way, and the farm and the shop are bidding for intelligence and skill."

He later argued that education "makes labor more skillful and more productive" and referred to a study made by Horace Mann in 1846 by sending a questionnaire to employers, which indicated the truth of this proposition. He quoted Mann as having written that "The hand is found to be another hand when guided by an intelligent mind. Processes are performed not only more rapidly, but better, when faculties, which have been exercised in early life, furnish their assist-

¹³ An evident reference to the panic of 1873.

ance." He further said that twenty-five years later the "National Bureau of Education widened Mr. Mann's inquiries, addressing business men in all parts of the country, and with a similar result." He then remarked, "The day of mere muscle has passed, and the day of mind has dawned. Every form of industry now demands the ingenious brain and the cunning fingers of educated labor." He concluded this lecture as follows: "The above propositions have reference to the industrial value of general education, but there is a growing demand for special industrial training. The rapid exhaustion of the fertility of our soil, the wide improvement in the taste of the people, and the great increase in the variety of our manufactures all demand higher technical knowledge and skill on the part of the American workman. This is especially true in the mechanic arts, where well-known causes have almost discontinued the apprentice system. If this decline of apprenticeship is not made good by technical training, the American workman will soon be at the mercy of the skilled labor of Europe. The railroad and the steamship have destroyed isolation, and nearly all skilled labor is subjected to world-wide competition.

"The American people are awakening to a recognition of these facts, and, as a consequence, there is a strong tendency in the direction of industrial education. The importance and value of such training are too evident to need discussion, and it is hoped that the time may soon come when these elements of technical knowledge which are of general application and utility will be taught in the public school, and when, in addition, every important American industry will have its technical schools.

"But in the advocacy of industrial training, great care should be taken not to disparage the practical value of general education. The subversion of the primary function of the public school to teach trades would sacrifice the more important to the less important. All experience shows that, even for industrial purposes, no technical training can compensate for the lack of intelligence. Thought gives quickness and accuracy to the eye and cunning to the fingers. What industrial skill and enterprise have the common schools of New England produced! What a conserver of industry is character! All the technical schools of Europe do not create the industrial power which vice destroys. Its wasteful and injurious consumption of the products of human labor is appalling!"¹⁴

From the standpoint of the present-day student of vocational education this is a remarkable address. At one moment one is led to sup-

¹⁴ White, E. E. "The Education of Labor," *Proceedings of the American Institute of Instruction*, 1878, p. 107-17.

pose here is as modern a point of view regarding vocational education as that of the most enthusiastic specialist of today, but the next sentence, or paragraph, literally jerks one back seventy years or more when educators were trying valiantly to save the schools from the contamination of nonacademic studies which would "prostitute culture" and "violate the sacred halls of learning," to quote an earlier speaker who thus expressed his opposition to the introduction of agriculture and mechanic arts into the colleges. There were, in the address, sweeping generalizations with reference to the vocations, which are still characteristic of the uninformed general educator who is afraid of the possible dominance of the vocational motive in all education. For example, "The day of mere muscle has passed and the day of mind has dawned." Was there ever a day of "mere muscle" in the skilled crafts, and do modern production methods require only the use of the mind? But, one of the most significant remarks in the address is that in which, after pointing to the fact that "the American people are awakening to a recognition of these facts, and as a consequence, there is a strong tendency in the direction of industrial education," he said ". . . it is hoped that the time may soon come when these *elements of technical knowledge which are of general application and utility* will be taught in the public schools, and when, in addition, *every important American industry will have its technical schools.*"¹⁵ These two ideas are of the very essence of the thinking of the educational leadership of that era. No special education of any sort must be permitted in the public schools, only "principles" underlying special occupational activities and they must be of "*general application and utility*," and industry must provide and pay for all specific vocational training. It is particularly interesting to find E. E. White often repeating or clearly implying these concepts when one recalls that he was the administrative head of a college designed to train agriculturists and engineers and which was originally expected to train farmers and mechanics. This emphasis on general application and utility played a determining role after 1880 in shaping the character of manual training, and is central today in much of the underlying thinking concerning industrial arts, the modern version of the earlier manual training.

There were other ideas expressed which are characteristic of educational thought of that period but which are of doubtful validity. A striking illustration is "Thought gives quickness and accuracy to the eye and cunning to the fingers." Another is the exclamation "What industrial skill and enterprise have the common schools of New Eng-

¹⁵ Italics are the present writer's, not White's.

land produced!" The latter quotation may be explained, in part, perhaps, by the fact that the speaker was addressing an audience composed chiefly of New England teachers and educational leaders. However, one can not overlook the fact that E. E. White, though restricted in his thinking by the prevailing influences of the era in which he lived, was one of the clearest educational thinkers of his day, and was far more sensitive to the rapidly changing economic and social conditions of the nation and to their implications for the future of education than most leaders of his time. He saw much more clearly than the majority of school men the necessity of providing vocational education, and played a leading role in stimulating the thinking of other leaders concerning the development of curricula more in keeping with the needs of the masses than the schools then provided.

Mr. M. A. Newell, Superintendent of Public Instruction of Maryland, in commenting on President White's address, quoted in part above, said: "If our public-school system were perfect, it would develop and direct in youth all the activities which adult life would call into exercise. Every one admits that the best interests of society demand good carpenters, good blacksmiths, good machinists, and good cooks, as well as good penmen, good calculators, and good elocutionists. We live just as truly by the labor of the hand as by the labor of the head, and yet all the machinery of education from the primary school to the higher school is devoted to the cultivation of brain-power exclusively. The hands need training to make them efficient workers in the actual business of life, but our schools think it beneath them to train the hands."¹⁶

This seems a more realistic attitude toward the work of the school than E. E. White's, but unfortunately the speaker did not make clear how far he would be willing to go to remedy the difficulty. Such criticisms of the existing school program were not uncommon at that time, but few were able to conceive of a public school which provided specific training of the hands for carpentry, blacksmithing, and cooking.

[Calvin M. Woodward¹⁷ opened his St. Louis Manual Training School in 1880 and began his notable campaign to induce American educators to "put the whole boy to school, his hands as well as his head." Woodward had been searching for years for a type of shop-

¹⁶ *Proceedings of the American Institute of Instruction*, 1878, p. 80.

¹⁷ Woodward (1837-1914) was a famous educator and founder in the United States of the "Manual Training Movement." In 1865 he became vice-principal and teacher of mathematics in the academy of Washington University, St. Louis, Missouri. Later he became professor of mathematics and applied mechanics and dean of the polytechnic school of the university. In 1896 he became dean of the school of engineering and architecture. He was the originator of the famous St. Louis Manual Training School and widely known both in Europe and America. He was a prolific writer and popular lecturer and exerted great influence on secondary education in the United States.

work that would be basic in character, that would train the "mechanical faculties" and do this in an orderly way consistent with prevailing theories of pedagogical procedure. He and President Runkle of Massachusetts Institute of Technology, who was seeking the same sort of thing for the engineering student, found the solution of their problems in the exhibit of the course of work developed by Della Vos at the Imperial Technical School, of Moscow. The courses of abstract exercises arranged in a pedagogical sequence of degree of difficulty excited the greatest enthusiasm and became the basis of manual training. The underlying theory of manual training was fully in harmony with the prevailing educational concept of the function of the common school. After 1880 the educational leaders interested in reform, for nearly two decades seem to have been wholly preoccupied with discussion of the place of manual training in the public high schools. Runkle neatly described the essential idea in manual training in the Institute catalogue of 1880-1881, when he wrote: "We abstract all the mechanical processes and manual arts and typical tools of the trades and occupations of men, arrange a systematic course of instruction in the same, and then incorporate it into our system of education. Thus without teaching any trade we teach the essential mechanical principles of all." This was the only kind of training other than "book learning" that was possible in American schools in 1880. The enthusiasm of the leaders is striking and the rapid growth of this type of schoolwork is remarkable, though there was much opposition to its introduction for many years. The major educational thinkers, however, saw in it a solution of the problem of vocational education without doing violence to the prevailing philosophy of education and without having to introduce specific vocational education. Their enthusiasm for and support of manual training, unquestionably, delayed for many years the providing of genuine vocational education by the public schools of the United States.

Nicholas Murray Butler, an enthusiastic advocate of manual training, speaking in 1888 about this earlier period, said: "The Russian experiment was made known to the people of the United States in 1876 by Prof. John D. Runkle, then president of the Massachusetts Institute of Technology. In his annual report for 1876, Professor Runkle gave an elaborate account of the Russian system and pointed out its application to the work of the institution over which he presided. In consequence a School of Mechanic Arts was added to the equipment of the Institute. In 1879 the St. Louis Manual Training School was organized, and the subject of manual training was formally

put before American educators for investigation and criticism. Both the Boston and St. Louis experiment, however, only suggested the real question at issue — they did little or nothing to solve it. They made plain that for boys of high school age manual instruction could be devised that would be practical yet disciplinary, educational, not technical.”¹⁸ As Butler truly said, the manual-training movement did not solve the real issue, but few educators of the 1880’s seem to have realized that fact.

At the convention of 1882 of the American Institute of Instruction, a Mr. John S. Clark, of Boston, presented a carefully reasoned and scholarly paper on the subject, “Industrial Education a Necessary Part of Public Education.” He attacked the existing curriculum as inadequate and made a plea for teaching the skills needed in the modern world. He made a psychological as well as an economic and a sociological argument for what he called “industrial training.” He related that the Board of Education of Chicago advertised for persons “with a sufficient knowledge of reading, writing, and arithmetic, to take the census of the public schools at the rate of two dollars and a half per day. Immediately five hundred persons applied to do the work.

“Now Chicago is one of the busiest cities in the world. It is a place where any person capable of doing intelligent work with his hands can readily find employment. Indeed, the difficulty is to find intelligent workmen at wages ranging from three to five dollars per day: and yet we find here a great superabundance of people, well trained mentally, who would feel it derogatory to engage in a mechanical employment, and yet desirous of selling their services at two dollars and a half per day.” He said, further, it is well known how easy it is to get persons who can do clerical work. “Indeed, it was not an extravagant statement of a New England manufacturer, that it was far easier for him to get a clerk in his counting-room capable of making a good translation of the Iliad or the Aeneid, than it was to get a workman in his factory capable of running his machinery.” Notwithstanding that the speaker, apparently, was arguing for what is now called vocational-industrial education, it seems clear that he was thinking of the newly introduced manual training in the public schools. His concluding words suggest that no clear distinction was, at that time, present in the minds of some of the advocates of “industrial training” between the general type of industrial training represented by manual training and specific vocational education for the trades. He said at the close: “In conclusion, it may be said that all the evidence so far

¹⁸ Butler, Nicholas Murray. “Manual Training.” *Proceedings of the American Institute of Instruction*, 1888, p. 220. Dr. Butler used the term “technical” to mean “vocational.”

accessible not only goes to show that it is possible to incorporate the elements of industrial education, including instruction in manual training, in our system of public education; but also that its introduction will at the same time strengthen all sound methods of intellectual training.

"Industrial education therefore becomes a most important matter of public concern. If what is claimed for it be true, its introduction will secure the harmonious development of the mental powers of our youth in the two directions of thinking and doing, and thus prepare them broadly for citizenship under a social order which requires the expression of thought by the skilled hand in labor, no less than by the use of writing. To bring our public education into harmony with the needs of our time, we must through our schools, dignify and ennoble manual labor by making it the servant of thought as expressed by skill. Too long has there been a divorcement between training for manual labor and methods or means of intellectual training. Antagonisms between the literary employments and those connected with manual labor have consequently been developed. To remove these antagonisms by bringing the instruction in our schools more into harmony with the requirements of labor in adult life is, therefore, not simply an educational or even an industrial question—it is one that lies at the foundation of all social questions."¹⁹

This paper by Mr. Clark went much too far for the majority of educators of 1882, and in the discussions which followed, sharp issue was taken with his views. E. E. White began the discussion by saying: "Now it seems to me that the paper which was read this morning is based on a philosophy that is destructive to public education in the United States." He argued that the school is not the only agency of society: "There are the parents, the community and the church."

And, further, he said, "Any advocacy, then, of industrial training that ignores these three other agencies in the education of the child or any training that puts the public school to the task of covering the province of the whole, will fail." He then said that another fallacy in the paper is that of assuming "that the aim of the public school teacher is to prepare this child to do something in life, to work with its hands and earn its bread and clothing, and build houses and carry on other industrial pursuits, that the leading purpose of the teacher, in his sublime office, is to prepare the child for the work of life. Now Aristotle never committed that blunder. But that grand philosopher put before us the aim of every educational process, *man*—the human

¹⁹ Clark, John S. "Industrial Education a Necessary Part of Public Education," *Proceedings of the American Institute of Instruction*, 1882, p. 167-201.

soul — man, above his work, — man, the supreme end, — the human soul and its culture the sublime purpose of general education. Now subordinate to that is the man's work. No one would wish to say we should lose sight of the fact that this boy is to work. Of course the family has not lost sight of that. The social community has not lost sight of it. And we are not to lose sight of it. But whenever you subordinate public education to the trades and occupations of life, you reverse its great purposes and subordinate its highest end to that which is lowest." Mr. White spoke at great length and apparently with much earnestness and was followed by Professor Larkin Dutton who said: "I want to say one word there, and that is that it seems to me that there is one fallacy underlying the remarks of the gentleman who has just spoken, and that is this: The assumption that it is not necessary for children to be fed and clothed in order to grow to be men; and I hold it to be a fundamental law that first, before you can be a man and be useful to other men, you must have the means of living. Hence, I say that any system of education which does not fit our children to earn their bread and butter and clothing does not do the work that we have a right to demand of the public school system."²⁰

A Mr. A. P. Marble, of Worcester, Massachusetts, disagreed sharply with Professor Dutton. His words are worthy of quotation here only because they represent the typical attitude of the opponents of all forms of practical or non-bookish activities in the schools, and he represented a very large number of school men of the 1880's. After a long, rambling discourse in which he tried to be clever and amusing, he made these remarks: "Now the schools we have to conduct are to train boys and girls in those directions that are common to everybody, and one of the things that the boys and girls ought to learn in these schools is how to get information from books. There is no information stored up in the plow, hoe handle, steam-engine; but there is information stored up in books. If a boy is prepared to get information from books he can make indefinite progress. If you take out of his hand the books and put in there the hand-saw and the hammer, ask the teacher — who is most likely a young girl, — to teach them, when she does not know anything about them, the whole matter simply becomes 'a bore' to all parties concerned. The saw is brought into the recitation-room and the teacher says 'now saw.' It is a thing that does not belong to the school at all. It belongs outside and ought to be attended to outside."²¹ Such comment, of course, is utterly absurd and proves nothing, but it does illustrate a type of complete misconception of the

²⁰ *Proceedings of the American Institute of Instruction*, 1882, p. 228-31.

²¹ *Ibid.*, p. 231.

character and purpose of vocational education in the school. This was, and to some extent still is, not an uncommon conception of vocational education. Nicholas Murray Butler, writing as late as 1921, after the establishment of the national program of vocational education under the provisions of the Federal Vocational Education Act of 1917, said: "The whole scheme of vocational training is not only a sham, and a costly sham, but an immense injury both to the individual and to the community, if it is permitted to find its way into the six elementary school years, or, in any but the most restricted fashion, into the six secondary school years. The child who while still an infant is seized upon and prepared for some specific calling is thereafter a prisoner without possibility of becoming a free man."²² There is little excuse for President Butler's statement, for he must have known that no responsible advocate of vocational education had ever thought of "seizing upon an infant and preparing him for some specific calling," or of placing vocational education below the senior high school; and that most leaders in the field of vocational education have thought from the beginning chiefly of the upper levels of the senior high school and of part-time education. Mr. Marble, however, and his contemporaries writing in 1882, can more easily be pardoned for visualizing vocational training as an elementary-school possibility, because few boys or girls at that time ever went beyond the elementary school and practically none did who became a mechanic. This fact doubtless explains in large measure the constant insistence upon "general," or "common," or "fundamental-to-all vocations" types of training visualized by so many advocates of vocational education of that period. Furthermore, young persons began their work-life for wages much younger in the 1880's than in recent years.

One further quotation of E. E. White is useful as an interesting illustration of the underlying theory of certain leaders of the times regarding the function of the tax-supported school and the implications of this function for vocational education. In an article in *Education* of November, 1880, on "Technical Training in American Schools," President White stated, as "fundamental principles involved," the following:

"1. The state has a right to teach any branch of knowledge that will promote the public welfare.

"2. The right of the state to teach all knowledge does not necessarily make such instruction its duty. The right to teach is one thing and the obligation to teach is another.

²² Butler, Nicholas Murray. "The Closing Door," *Educational Review*, 62:425, December, 1921.

"3. The duty of the state to teach is also conditioned by necessity. The state has no monopoly of education.

"4. The primary and imperative duty of the public school is to provide training and to teach knowledge of general application and utility. . . . It is a *common* school, a school designed to impart a common education, — an education open to all and useful to all.

"5. The public school . . . exhausts neither the right nor the duty of the state in education." Further, he pointed out that the state may establish other kinds of schools, such as colleges and special schools.

He then raised the question as to whether any vocational ("technical") education can be provided in the public school "without subverting its primary function, without sacrificing the more important and imperative to the less important and incidental." He did not object to *general* forms, or elements, of "technical knowledge" but thought it both impossible and improper to use public schools to teach trades. "It is not the duty of the schools to teach trades, and an attempt to do this work on any adequate scale would subvert public education from its primary purpose, and end in disappointment and failure."²³

By 1882 the manual-training movement was beginning to attract widespread attention as a result of the dynamic advocacy of Dr. Calvin M. Woodward, and the growing pressure on the schools for a less "bookish" and more "practical" type of education. This pressure was felt all along the line from the elementary school through the college. By that time the land-grant colleges had become more nearly the type of institution they now are, and were a clear illustration of a fundamentally new concept of higher education closely related to the economic and occupational life of a nation. The polytechnic institute was by that date an established technical institution of secondary level, and was recognized as successfully meeting a specialized vocational-education need, though, like the "business college," it was a privately supported school. The professional educator seems to have accepted these types of vocational schools without any unusual show of apprehension, but the manual-training movement provoked extraordinary interest and much heated debate because the training was advocated as a phase of public education. It was the effort to broaden the function of the public school that induced the fears of many educators who felt that culture, as then generally conceived, was at stake.

It is of interest at this point to recall that in the early colonial ordinances governing apprenticeship, it was regarded as an important means of education and that it became, as Seybolt says, "not only . . . of fundamental social and economic importance . . . but it was the

²³ White, E. E. "Technical Training in American Schools," *Education*, 1:114-16, November, 1880.

most fundamental educational institution of the period.”²⁴ Also it is interesting that “the tendency of colonial apprenticeship to take on the character of an agency for universal elementary education is one of its most striking characteristics. This characteristic marks it as a significant factor in American educational history and doubtless played a large part in influencing subsequent industrial education programs in this country.”²⁵ Learning a trade, and acquiring at least the elements of a general education at the same time, characterized the education of the craftsman classes for centuries, including much of American colonial history. But by the 1880’s this concept had seemingly become utterly foreign to the thinking of most professional educators.

However the debate over injecting practical courses into the school program continued until the rise of the vocational-education movement of the early 1900’s, and to some extent continues still. Commercial education was tolerated by the school man as a phase of public education, soon after the period of the Civil War, but that involved the use of books and writing, and hence was not educationally degrading and wholly incompatible with the traditional concept of the school as a place of books.

The manual-training movement soon after 1880 attracted a growing number of able advocates, and throughout the remaining years of the nineteenth century played a major role in the thinking of educators with reference both to a general reform of all elementary and secondary education, and to the growing concept of school-provided vocational education of less than college grade. Mr. L. H. Marvel, writing in *Education* in 1882, said: “The mass of children in the public schools do not have the preliminary training of the Kindergarten, and never pass into the technical and special schools. For them it is evident that the common school work should include such manual training as will supplement education of the brain by education of the hand, — a natural development of such culture of the hand and eye as will lead to the best preparation for any form of skilled manual labor.”²⁶ He further discussed the need for manual training because work and study, which were historically closely associated, had become separated. His paper illustrates the growing idea of that period that the “culture of the hand and eye” would be a desirable foundation for any mechanical trade.

By 1884 many had entered the debate of the introduction of industrial education. Some were using the term industrial as it is now

²⁴ Seybolt, Robert Francis. *Apprenticeship and Apprenticeship Education in Colonial New England and New York*. New York: Columbia University, 1917, p. 22.

²⁵ Mays, Arthur B. *The Problem of Industrial Education*. New York: The Century Co., 1927, p. 57.

²⁶ Marvel, L. H. “Manual Education in Public Schools,” *Education*, 2:490-96, May, 1882.

used, others to mean vocational education, but seemingly most were thinking of manual training as a proposed solution of the popular demands for the preparation of youth for the growing industries of the nation.

A few more quotations of this period, 1875 to 1885, will suffice to show the ideas concerning the problems of a more useful education and the demands from the economic environment on the public school for vocational education, particularly for industrial education.

A long paper by "The Honorable J. W. Patterson L.L.D.," of New Hampshire, President of the American Institute of Instruction, was read before the Institute in 1884 on the subject "Industrial Education." He spoke of the marvelous industrial activities "of our time." "Machinery, directed by educated labor is pouring forth from factory and farm; unmeasured products to meet the insatiable demands of commerce, and new fields of supply and new markets of consumption are daily added to the statistics of trade, and we are in the forefront of this Olympiad of business.

"There is a popular impression, and, in some quarters, a positive conviction that our schools in all their grades, as at present organized, fail to impart the qualifications necessary to victory in this contest."

He argued for separate industrial schools but they must not "forego the broad and general culture through the practical methods which they now employ" and must not degenerate into mere workshops and "trade-factories."

He further said: "I cannot see that the public welfare would justify a tax for the support of schools of law, medicine, theology and instruction in industrial trades, for those, personal and social interests will necessarily maintain without such aid.

"It is not the function of the public school to equip its pupils with a trade or profession, but to awaken intellectual activity and direct it in paths which will lead to the highest material prosperity, political strength, intellectual power and exaltation of character. But these ends are in harmony and may all be reached more quickly and effectually by a reformed than by the old system of pedagogy." He would make general education more practical by better teaching and less mere memory work and abstractions. He even would teach drawing and demonstrate some of the "cheaper implements of labor." He would "use specimens and apparatus, and teach all things by inductive methods, till the mind could grasp and handle abstract truth."

"But all these things should be subordinated to the acquisition of knowledge and the discipline of the mind. I take issue with him who

would turn the schoolroom into a work-shop. The sound of hammers, files, saws and planes, and the racket and creaking of machinery are incongruous and out of place where mental work is to be done."

"Separate industrial schools in the large towns and cities if conducted as schools, and not as trade-factories, are noble and hopeful signs of the times, but there must be a complete revolution of public opinion, before our farming towns will consent to tax their property for such an innovation, and it would be of doubtful utility if they did."²⁷

This address is characteristic of a large section of educational thought of the period, and illustrates the general tendency to deal with the problem of vocational education in a purely theoretical or "academic" manner without firsthand investigation of the specific needs of individuals and of the employing vocations, and without offering specific suggestions for solutions.

A somewhat more analytical and practical consideration of the problem is that of Thomas W. Bicknell, President of the National Education Association, in his address before the Convention at Madison, Wisconsin, in 1884. He was quoted as saying: "The advocates of industrial education urge upon the primary school the substitution of industrial disciplines for some at present retained. From the experience of the Kindergarten it would seem as if the training of the hand and eye could be carried up into the primary school. But the direction of the primary school will not consent to neglect those branches of instruction which are traditional in its course of study. The main thing which keeps back industrial education is the defect of methods that can generalize the various manual processes in the trades. In fact, it is the progress made in this direction already by the Russian training school that has given so much impulse to industrial education. Further progress in this direction will come in time, and will be accompanied by corresponding growth in the system of schools devoted to manual training. Industrial drawing has had much trial in our schools and is past the stage of mere experiment, and will hold its place in primary instruction as a general discipline of hand and eye.

"When other manual training discovers disciplines that are of so general application to all pursuits as free-hand drawing, undoubtedly they will be made a part of the course of study and training in the common school."²⁸

He said of science: "The main point to be kept in mind is the importance of avoiding one-sidedness, and taking one science or one class

²⁷ Patterson, J. W. "Industrial Education," *Proceedings of the American Institute of Instruction*, 1884, p. 183, 187, 192, 194, 195.

²⁸ Bicknell, Thomas W. "The President's Address," *Proceedings of the National Education Association*, 1884, Part II, p. 45.

of sciences for the whole. The same tendency has been observed in the matter of industrial education. It has been supposed, apparently, that one special branch, — that of carpentry or working in wood, — includes general industry. The fact that only one person in twenty is needed for working in wood even in communities most given to mechanical employments does not seem to have had due weight. So the study of botany alone is not enough to meet the demand of natural science.”²⁹

Here, again, is expressed the familiar concept of a generalized type of vocational education for the “common schools,” and the avoidance of anything resembling special or specific vocational education. As pointed out earlier, this fear of the possible consequences of specialized vocational education was probably due, in part, to the persistence of the erroneous concept of vocational education as a function of the elementary level of school; this idea being due, in turn, to the fact that boys entering industry in the 1880’s rarely went beyond the elementary school.

This aversion to specific training in tax-supported “common” schools was even more specifically expressed by John M. Ordway, speaking before the Industrial Department of the National Education Association at the same convention (1884). He concluded a very long paper thus: “Encourage manual-labor schools if you will, but recollect that the pursuit of one narrow line of work to earn money or board is not true industrial training. By all means promote useful and instructive industry in orphan asylums and almshouses and reformatory institutions, but do not stop there. Encourage art schools and drawing in common schools, but remember that imitation and design are not execution, and we must not lose sight of the substance and rest satisfied with the shadow of industry. Special trade schools ought to be multiplied, but it belongs to the particular trades or guilds to attend to them. Their proper time comes after the common school has laid a good foundation, and their work is very much circumscribed. We must look out for a practical education suitable for the great mass of boys and girls. Let it combine the kindergarten and the primary school, the sloyd school and the common school. Let it include finger plays and object lessons for the little ones, handwork for the middle schools, drawing, modelling, and manual training in the more advanced schools, and, for as many as can go farther, the physical, chemical, and biological manipulation of the scientific schools and colleges. So shall we at length succeed in bringing up a race of true men and women with trained muscle, trained mind, and executive power.”³⁰

²⁹ *Ibid.*, p. 47.

³⁰ Ordway, J. M. “Handwork in the Schools,” *Proceedings of the National Education Association*, 1884, Part II, p. 333.

This is but further evidence of the confused and unrealistic thinking so often met with during that period of educational reconstruction when the pressures of a rapidly expanding national economy were pushing in on the schools from all sides.

William T. Harris³¹ never seemed to grasp the real purposes of manual training as presented by Woodward and other leaders of that movement, and to the end he fought its introduction into the common schools. To the extent to which he did understand some of the ideas of the advocates of manual training he rejected them on psychological and pedagogical grounds. Charles A. Bennett, the historian of industrial education, said of Harris: "It is interesting to notice that his ideas were more European than American, at that time, (1884) so far as special schools were concerned. He wanted what are now called vocational schools." After looking over an exhibit at the Convention of 1884, of work done in various industrial classes, Harris said: "All will rejoice that the matter of fitting for one's vocation in life is to become a matter of schooling rather than of apprenticeship. Intelligent skill will supplant mere 'knack.' Valuable time will be saved for general studies. Educated workmen from manual-training schools will furnish overseers that can teach as well as boss their subordinates. It is not necessary, as some think, to introduce manual training into the common school. What we want is the manual-training school side by side with the high school as an independent institution for the preparation of youth for their vocation."³²

One further example of the thinking of the general educator concerning vocational education during the period 1875 to 1885 will suffice to make clear the general confusion of ideas as well as the very great interest in the subject. Felix Adler, of New York City, in an address before the National Education Association convention of 1884, said: "It should be clearly understood at the outset of this paper, that the method of instruction which it is my purpose to advocate is not any scheme of 'industrial education,' in the sense in which that phrase is commonly employed. There is, in certain quarters, a great outcry against our public schools, because they do not turn out skillful wage earners. The demand is made that the system of instruction shall be of a more 'practical' character, that it shall furnish a more purely material equipment for the exigencies of life, than is the case at

³¹ Famous American educator and philosopher (1835-1909). He began teaching in St. Louis in 1857, becoming principal, assistant superintendent, and in 1868 superintendent of St. Louis schools. He was a prolific writer and industrious student. He was widely quoted and greatly in demand as a speaker. In 1889 he became United States Commissioner of Education, which position he held until 1906, when he resigned. His influence on education was very great; he was one of the major figures in the history of American education.

³² Bennett, Charles A. *History of Manual and Industrial Education, 1870-1917*. Peoria: The Manual Arts Press, 1937, p. 362-63.

present. To remedy this deficiency, various kinds of technical work have been from time to time introduced into the schools, in different parts of the country. Carpentry, printing, shoemaking, and art metal-work, have been interjected into the school curriculum, in order to supply the want which is felt to exist, and place the school abreast of modern requirements. This has not been done, however, without determined opposition, — an opposition, let me hasten to say, with which I fully sympathize. I believe that the State violates the rights of children, when it undertakes to prescribe their future careers during the school age. The business of the public school is not to educate operatives, any more than it is to educate merchants, or clergymen, or physicians. The schools are designed to supply those elements of general culture, which are necessary to all men and women alike. Unless, therefore, it can be demonstrated that technical work and art work *are* elements of that broad culture which all human beings ought to possess, these novelties should by no means be admitted into the curriculum." He then proceeds to show that shopwork and artwork are of this character and should be taught even "though the busy hum of every workshop should be hushed into silence, though the earth nourished her children without requiring their labor; still, technical and art instruction would be as vitally important as ever, simply as elements of mind culture."³³

It would be difficult to find a more representative expression of the kind of thinking which generally characterized the general educator of that day. One moment he appears, to the present-day reader, to be fully in accord with modern thought concerning the functions of public education, but the next moment one finds he means something quite different. One feels, at one time, that he fully believes in vocational education; then there appears a sentence which causes one to think he believes only in "mind culture." It was, indeed, an era of confused ideas and uncertain terminology concerning education. It had all the characteristics of a transition period where changes come one after another at a speed too great for the educator to see them in clear perspective. He tried valiantly to meet the demands of his day, but the necessary adjustments in thinking were too great to be made quickly, and he came to the middle of the decade of the 1880's looking forward but badly confused with reference to the road he should follow to go forward.

³³ Adler, Felix. "Technical and Art Education in Public Schools, as Elements of Culture," *Proceedings of the National Education Association*, 1884, Part II, p. 308-09. Adler (1851-1933) was professor of Hebrew and Oriental literature at Cornell University from 1874 to 1876, and of social and political ethics at Columbia University in 1903. He was the founder and Rector of the Ethical Culture School and Chairman of the National Child Labor Committee. He was a writer on ethics, ethical philosophy and education.

CHAPTER V

THE IDEA OF MANUAL TRAINING AS VOCATIONAL EDUCATION, 1885 TO 1900

DURING the last fifteen years of the nineteenth century the debate over vocational education continued with increasing heat and little progress in clear thinking and appreciation of the vital factors of the problem. By 1885 few leaders were able to think on this theme beyond their notions for or against manual training. The need for agricultural education, business training of a really practical sort, and a genuine type of homemaking education seems to have dropped out of the attention of nearly all, and industrial education, as represented by manual training, appeared as the sole point at issue.

Calvin M. Woodward, on his return from England, in 1885 was invited by the Governor of Massachusetts and the Mayor of Boston to speak at a "public gathering" in Huntington Hall. He began his address with this quotation from Emerson: "We are students of words; we are shut up in schools and colleges and recitation rooms from ten to fifteen years, and come out at last with a bag of wind, a memory of words, and do not know a thing. We cannot use our hands, or our legs, or our eyes, or our arms. . . . In a hundred high schools and colleges, this warfare against common sense still goes on." He later in this address, says Bennett, "gave utterance to the oft-quoted epigram . . . 'My educational creed I put into six words: "*Put the whole boy to school.*"'"¹ This shibboleth so often used by Woodward and others in subsequent discussions of manual training aroused the ire of certain of the conservatives of that day. William T. Harris, at the meeting of the Department of Superintendents of the National Education Association in 1889, read a paper on "The Psychology of Manual Training" which attracted wide attention. In it, while not attacking manual training *per se*, he did object to the language used by those advocating it, and the educational philosophy supporting it. He particularly objected to Woodward's "put the whole boy to school." He said it was the sort of thing that had become "fashionable in educational treatises since the days of Pestalozzi to define the province of education as the 'full and harmonious development of all our faculties.'" He objected that "this is a survival of Rousseauism and like all survivals from that source is very dangerous." "Again," he said, "this definition ignores the great distinction between the higher and lower faculties, between our faculties that are means to ends above them, and those faculties which are ends in themselves. Sound psy-

¹ Bennett, Charles A. *History of Manual and Industrial Education. 1870 to 1917.* Peoria: The Manual Arts Press, 1937, p. 367.

chology, for example, looks upon ethical insight as higher than insight into what is useful as a means to an end.”² Harris was uncompromising in his attitude toward the “higher” and the “lower”; and the lower, or useful, had no place in the common school, except as it could be made to serve the “higher.” Vocational education which dealt only with the “lower faculties” should be taught to the lower classes but only in “special schools” where it could not interfere with or contaminate the learning which developed the “higher faculties.” He was one of the few educators of his day who made no pretense of conforming to the new ideas that looked toward liberalizing the schools by injecting into them subjects and activities that were “practical” and useful in meeting the demands of a new economic era.

Another leader of the late 1880’s who was uncompromising in his views was John W. Dickinson, Secretary of the Massachusetts Board of Education. Writing in the magazine, *Education*, of June, 1887, he said: “If it is the function of the public school to prepare the children for some special mode of gaining a living, those exercises may be introduced which will train them to some special employment. This would introduce into our common school work the professional and industrial elements, and the schools would be no longer common schools.

“But if there is a human education which should precede the acquisition of all special professional or industrial skill, and which has a tendency to bring the individual to his special work with a trained intellect, a strong will, and a manly spirit, then we may establish public educational institutions to be supported by a general tax and may gather all the children into them for a common course of study. This sort of human training is what John Stuart Mill says every generation owes to the next as that upon which its civilization and worth will largely depend.

“But the idea of introducing into the public school any exercises that have for their immediate end to train the children for the practice of the trades or the professions, or for special places of any kind, has been quite generally abandoned. . . .” This last sounds much like wishful thinking, for the idea was far from being abandoned, else his labored argument for disciplinary general education and against any kind of shopwork or other specialized education which followed would have been uncalled for. To aid his cause, he quoted “the chief superintendent of the schools of New Brunswick,” who said in his report of an educational exhibit “it is useless to give heed to the talk about teaching trades in the public schools. It cannot be done, and any attempt

² Bennett, *op. cit.*, p. 370.

whatever to sacrifice the general training for any special aim will inevitably bring disaster on the cause of education."³

A somewhat more objective view was expressed by J. Milton Hall, of Rhode Island, in his presidential address at the convention of the American Institute of Instruction of 1887. He said: "The expression, 'a practical education,' you have heard, no doubt, *ad nauseam*, and most frequently from those who can see but one side of the great subject. Yet I presume there is not a person here who does not fully believe in giving to our pupils a 'practical education' in the true meaning of the term." Then after discussing what education is "practical," and including all cultural education in the definition, and no vocational education, he inquired: "Is that the practical education which unduly develops a few faculties for mere temporary advantage? . . . Is not that rather the true education which endeavors to produce a well balanced, symmetrically trained mind, that shall forever be a source of pleasure?"

He then pointed out that "the introduction of 'industrial education,' or 'manual training,' into the curriculum of the public school continues to excite much discussion. Able, earnest, and honest advocates are urging it as a missing factor in the educational problem of today. Others, equally honest, earnest, and able, are as conscientiously and persistently opposing it, not on account of any objection to industrial education in itself, but because they see grave objections to engrafting it upon the public school system. We can but hope that this discussion will be continued in the right spirit until honest searchers after the truth have found it.

"Thus far, the experiments which have been tried, although in some instances producing quite satisfactory results, have not covered a sufficiently wide range to warrant the general introduction of 'manual training,' as now generally understood, into those schools which are maintained wholly at the public expense.

"Sewing, as a part of the education of girls, seems to retain a strong hold in a majority of the places in which it has been introduced, on account of its general need and application.

"Carpentry has been tried in a number of places, with varying success. No other branch of manual industry has, I believe, been tried in the boys department to an extent worthy of mention.

"Cooking is one of the latest candidates for favor, but as yet the results have not been such as to afford ample proof of the advisability of introducing it.

³ Dickinson, John W. "Industrial Education in the Public Schools," *Education*, 7:669-76, June, 1887.

"I have yet to learn of the city or town in which any of these forms of 'manual training' are generally adopted, with the possible exception of sewing in certain grades of girls schools. In most, if not all cases, those pupils, and only those, who can master the subjects assigned to their respective grades with ease, are encouraged or permitted to enter the classes in carpentry or cooking, while the needs of those who undoubtedly are to be 'hewers of wood and drawers of water' are not considered.

"Said one of our most able city superintendents in a recent report, 'Let all have the advantage, or none, I should discountenance any such partial experimental arrangement as is now in progress in several places, whereby membership of the industrial classes is made the reward of superior scholarship, and is limited to comparatively few. It is the poorer scholars, probably, who will need trained muscles in their maturity, rather than the better ones, — the indiscriminate mass, rather than the selected few.'"⁴

Nicholas Murray Butler, President of the New York College for the Training of Teachers, in a scholarly address before the 1888 convention of the American Institute of Instruction gave his definitions of terms as he thought they should be used in discussions of industrial education. He was evidently trying to bring some degree of order out of the prevalent confusion in terminology. He said: "The two phrases, 'manual training' and 'industrial education,' the latter term being intended to signify an education which recognizes and includes manual training, are ambiguous and subject to serious misconstruction. It is a misfortune that no acceptable substitute for them has yet been found. Industrial education is an education in which the training of the pupil's powers of expression goes on side by side with the training of his receptive faculties, and in which the training of both is based on a knowledge of things and not of words merely. Industrial education is not technical education, though many persons confound the two. Technical education is a training in some particular trade, industry or set of trades or industries, with a view to fitting the pupil to pursue it or them as the means of gaining his livelihood. It is a special education, like that of the lawyer or the physician. It takes for granted a general education and builds upon it as a foundation. Industrial education on the other hand, is the foundation itself. It is the general and common training which underlies all instruction in particular techniques. It relies for its justification upon the nature of the human mind, its powers and capacities."

⁴ Hall, J. Milton. "Presidential Address," *Proceedings of the American Institute of Instruction*, 1887, p. 7-8.

It is interesting to note that none of the terms Butler defines are so defined today, and it is evident that many writers of the 1880's did not so understand their meanings.

Butler was an ardent advocate of manual training, or "industrial education," but a foe of "technical education," or vocational training, in the public schools. He said in this same paper: "It is not the business of the public school to turn out draughtsmen; or carpenters, or metal workers, or cooks, or seamstresses, or modellers. Its aim is to send out boys and girls that are well and harmoniously trained, to take their part in life. It is because manual training contributes to this end that it is advocated. We will all admit, indeed I will distinctly claim, that the boy who has passed through the curriculum which includes manual training will make a better carpenter, a better draughtsman, or a better metal worker than he who has not had the benefit of that training. But it is also true that he will make a better lawyer, a better physician, a better clergyman, a better teacher, a better merchant — should he elect to follow any one of these honorable callings — and all for the same reason; namely, that he is a better equipped and more thoroughly educated man than his fellows in whose preparation manual training is not included. Therefore, manual training is in accord with the aim of education."⁵

It is of interest to compare with this concept of the value of manual training a statement occurring in the *Report of the Harvard Committee* on "General Education in a Free Society," published in 1945: "In the final section of this chapter we shall say something about the importance of shop training in general education. For those who intend to go into scientific technological work, it has special relevance. The manipulation of objects, the use of tools, and the construction of simple apparatus all are required for entry into the world of experimentation. Even the pure mathematician is greatly aided by shop experience; the forms, contours, and interrelations of three-dimensional objects provide a stimulus and satisfaction not to be achieved altogether within the limits of plane diagrams. The lack of shop training is at present a most serious deterrent to entry into all types of technological work and to college and postgraduate training in science, medicine, and engineering. What students should learn in secondary school specifically is the use of simple hand tools and the execution of simple basic operations, such as soldering and elementary glass-blowing and jointing. If the student can be taught to operate a drill press, a wood lathe and a machine lathe, so much the better. Obviously, the equipment for work with power-driven tools is not ordinarily available except in larger schools."

⁵ Butler, Nicholas Murray. "Manual Training," *Proceedings of the American Institute of Instruction*, 1888, p. 217, 218, 223.

And the "final section" referred to, says: "Such experience is important for the general education of all. Most students who expect to go to college are now offered an almost wholly verbal type of preparatory training, while hand training and the direct manipulation of objects are mainly reserved for the vocational fields. This is a serious mistake. The bookish student needs to know how to do things and make things as much as do those students who do not plan to take further intellectual training. The direct contact with materials, the manipulation of simple tools, the capacity to create by hand from a concept in the mind — all these are indispensable aspects of the general education of everyone. In some schools pupils receive such training in the elementary grades. Other students gain such experience outside of school; but for those who have had no experience in the use of tools, a high-school course may offer the only possibility."⁶ These Harvard professors of 1945 seem to be in full accord with Dr. Butler's thought of 1888.

On the whole, the thinking of most leaders during the closing years of the nineteenth century betrayed a fear that the traditional cultural forms of school education would be displaced by some sort of vocational education that would be wholly utilitarian and the "higher faculties of the mind" would be utterly neglected. Some welcomed the non-vocational manual training as a happy compromise with the forces of the social and economic environment which were demanding a change in the curriculum. Others seemed to feel that an uncompromising defense of the traditional curriculum was the only hope for the future of general education. Still others were receptive to the idea of the introduction of courses into the public schools which would contribute directly to vocational competency. A few additional quotations from papers and addresses during the 1890's further suggests these conflicting trends of thinking.

James H. Baker, of Denver, Colorado, in an address before the National Education Association in 1890 on "The High School as a Finishing School," after a long argument favoring the teaching of psychology in the high school, said: "A business course, for instance, in a high school, is regarded by some as desirable. But we must think that its introduction is emphasizing comparatively unimportant details in the scheme of education, such as bookkeeping, local history and our own government. These are important, but should not be unduly emphasized to the neglect of more comprehensive studies." He also objected to manual training on the same grounds, and betrayed something of his fear in the opening sentence of a long argument against

⁶ "General Education in a Free Society," *Report of the Harvard Committee*. Cambridge, Massachusetts: Harvard University Press, 1945, p. 160, 175. Reprinted by permission of the publishers.

its introduction when he said: "The foremost question of today is that of manual training. I would not disturb this bone of contention if I could fairly neglect it."⁷

William T. Harris, speaking on "Vocation Versus Culture: Or The Two Aspects of Education" in 1891 said: "Above all, we must never yield to the economic spirit that proposes to curtail the humanizing studies in our schools, for the sake of adding special training for industries. Rather must we do what we can to extend the period of study in pure science and the humanities, knowing as we do that all which goes to develop the ability of the youth to see possibilities and ideals, goes to make him a more productive laborer in the fields of industry."⁸

In concluding a long magazine article on "The Relation of Manual Training, or Industrial Training to Public Schools," published in 1893, Z. Richards, of Washington, D. C., wrote: "In closing the present discussion, we would say, let just so much of manual training, or industrial training, be introduced into the common curriculum of the elementary school, as will make the pupils familiar with the language and terms of the common employments of life, and leave the practical manipulation of the employments to the trade schools, and to the professional schools."⁹

A somewhat different approach to the problem of vocational education is found in a paper published in 1896 by Superintendent of Schools Samuel T. Dutton, of Brookline, Massachusetts. In an elaborate historical review of the American schools he said of the pioneer school: "Considered as mental training, what was obtained in the schools amounted to but little. Education in its best sense was acquired on the farm and in the shop, where the mind was ever alert and active, and where the trained hand was its obedient servant." He then recited in detail the remarkable economic development of America, but pointed out that the schools had utterly failed to keep pace with the changing life of the people. He enlarged at length on the social, economic, and political significance of a vocation, but asserted that the schools gave no attention to the matter of informing youth of the importance of a vocation. He seemed, however, to be thinking of *talking about* vocations rather than of acquiring training in them. "Considering, then, the great importance of vocations in determining the quality of manhood and citizenship," he wrote, "the question, 'What ought education to do in this connection?' is certainly a pressing one. It becomes especially so when we consider the social and industrial changes during the past

⁷ Baker, James H. "The High School as a Finishing School," *Proceedings of the National Education Association*, 1890, p. 637-38.

⁸ Harris, William T. "Vocation Versus Culture: Or The Two Aspects of Education," *Proceedings of the American Institute of Instruction*, 1891, p. 20.

⁹ Richards, Z. "The Relation of Manual Training, or Industrial Training to Public Schools," *Education*, 13:627, June, 1893.

fifty years. . . . There is little or nothing in our school curriculum respecting the theory of the mutual inter-dependence of capital and labor. Our high schools, which include on an average about five per cent of our boys and girls, are, some of them, devoting a fraction of time to the subject of economics. But even there, so far as I know, there is nothing of industrial history and no study of the causes that have led to the present industrial unrest." He summarized his paper as follows: "Education in this country has clung too closely to old ideas and conditions and has not adapted itself easily to new situations. It has been too abstract and general and has not recognized the place vocation holds in the life of the individual and the nation. I have shown that little or no attention has been given to the historical growth of industry or the mutual relations of labor and capital, and that our condition in respect to the independence and happiness of the laborer compares unfavorably with that of several centuries ago. Emphasis has been laid upon the inadequate teaching of science and the consequent failure to meet present demands."¹⁰

In a report of a meeting of the Michigan Schoolmasters Club in 1899, W. H. White was quoted as saying: "If the high-school curriculum be so arranged as to enable the boy to discover a talent or bent that determines his future vocation, or if it can afford training along the very line of work at which he may earn his living, the school has certainly prepared him for life in a very practical way." He added: "Teachers, as a class, regard unfavorably any argument from the utilitarian standpoint of a high-school education. Taxpayers on the other hand, rate the value of the school chiefly from this standpoint. Any increase in the elective work in our schools will meet with the approval of the taxpayers." The report indicates much difference of opinion on these statements.¹¹

Notwithstanding that some little progress seems to have been made during the last two decades of the old century toward an acceptance of vocational education as a responsibility of public education, it is probably not inappropriate to give, as a last expression of the thinking of the general educator of that period, the words of Mr. Thomas Vickers, superintendent of schools of Portsmouth, Ohio. Writing on the subject "The High School and Its Enemies," he said: "The legitimate work of the high school is in the line of liberal education. And if anyone asks what is meant by that term, I know of no better answer than that of Sir William Hamilton. It is, 'an education in which the individual is cultivated, not as an instrument toward some ulterior end, but as an end unto himself alone; in other words, an education, in

¹⁰ Dutton, Samuel T. "The Relation of Education to Vocation," *Educational Review*, 12:335-47, November, 1896.

¹¹ "Report of Michigan Schoolmaster's Club," *School Review*, 7:237, April, 1899.

which his absolute perfection as a man, and not merely his relative dexterity as a professional man, is the scope immediately in view.'"¹²

The 1880's and '90's marked the beginning of the rapid growth of public high schools and several new controversial questions were injected into educational discussions having to do with the expanding secondary program. One of these which greatly disturbed the educator who insisted on the idea of "common education" as the basic concept of public education, was the Elliott proposal of free electives. During the late '80's, this question played into the discussions of manual training and of vocational education to an increasing degree. The idea of elective courses opened the way for an extension of the manual-training offerings in the secondary schools and made less meaningful the old arguments against manual training as having no legitimate place in the *common education* of the elementary school. As a matter of fact, manual training started at the high-school level, and it developed very slowly in the elementary program until after 1890, when the sloyd movement began to produce modification in the "Russian" type of manual training in the high schools. By 1900, notwithstanding there was still much opposition from the conservatives to the spread of manual training, it was securely established and was becoming increasingly common year by year.

The pressure from outside the school for vocational education of a specific and functional character was heavier than ever by 1900, and the general educator was seemingly increasingly aware of it. Many hoped that manual training and the courses in domestic science and domestic art would satisfy the demand, but already it was becoming evident that manual training was not what Snedden, a little later, called, "real vocational education." Hence the century closed with the educator mind as confused as ever concerning the part the public school should play in training youth for the expanding economic life of the nation. The increasingly heterogeneous character of the secondary school population was adding nothing to the peace of mind of the general educator, and neither manual training nor the elective system solved the problem. Much thinking by the general educator about vocational education had occurred, however, since the early agitation for agriculture and the "mechanic arts" during the 1850's and '60's and the conceptual basis for the idea of specific vocational education of secondary grade had been laid. The first two decades of the new century brought a change in thinking that probably would not have been possible but for the ideas developed during the debates over the earlier efforts to inject "practical work" into the schools.

¹² Vickers, Thomas. "The High School and Its Enemies," *The School Review*, 1:94-95, February, 1893.

CHAPTER VI

THE IDEA OF SPECIFIC VOCATIONAL EDUCATION IN SECONDARY SCHOOLS, 1900 TO 1920

DURING the first decade of the twentieth century the pressure from the economic forces outside the school for the provision of facilities for specific vocational education in the secondary schools became too great to be evaded any longer. Industrial employers particularly were insistent that their need for trained mechanics be met. They were convinced that manual training was not "real vocational education" and the thinking of the general educator began to show indications of a change with respect to all types of vocational education. Elmer Ellsworth Brown, of the University of California, writing on secondary education in 1900, said: "The recognition of the importance and need of purely vocational schools of secondary grade puts a new aspect on the problem of the school curriculum. . . . Americans are loath to recognize any necessity of a bifurcation of courses, such that the student taking one road finds the way open to indefinite advancement in higher studies, while one taking the other alternative finds a definite limit a little way before him. We have commonly failed to recognize the need of turning aside at some point, early or late, to master a distinct occupation in life. We have been willing to sacrifice expertness in one's calling to the hope of unlimited progress in higher culture. With the growing interest in technical training of a commercial or mechanical sort, there appears a set of difficult problems. A purely vocational course in a trade school presents no educational outlook beyond the mastery of the trade. If a final choice must be made between the highway of learning and cul-de-sac, how shall it be so far postponed as to give to each pupil his full share of general culture, without reducing unduly his chance of full preparation for his life work? Still more difficult are the questions relating to certain semi-vocational courses, such as those of the manual training high school. The tendency is to regard these as primarily courses for general culture, with an outlook into the college or high scientific school. It is possible that at times their service as preparatory to the mastery of certain trades has been somewhat obscured in this view. But questions such as these are still before us for settlement."¹ This is the first clear-cut, objective view of the problem, as it existed during that period of history of American education, encountered in this study.

¹ Brown, Elmer Ellsworth. "Secondary Education," *Monographs on Education in the United States*. Ed. by Nicholas Murray Butler. Albany: J. B. Lyon Company, 1900, Vol. I, p. 41-42. Brown (1861-1934) served as school principal and Y.M.C.A. secretary in Illinois and Michigan. He was professor of education in Michigan and later in the University of California. He was United States Commissioner of Education from 1906 to 1911. In 1911 he became Chancellor of New York University and in 1933 became Chancellor Emeritus. He was a writer and influential leader in the field of education for many years.

If more educators had been able to see as clearly during the 1880's, '90's, and early years of the 1900's, vocational education would doubtless be much better able now to play the part assigned to it by modern society. It was a remarkably clear view of the problem for one to have in 1900.

The same author, in an extended article, running in two issues of the *School Review*, in 1901, wrote: "But there is another tendency of large significance, which has to do with the effort to find for every citizen his place of more effective service. I refer to the movement which is giving us vocational schools of secondary grade.

"We seem to be coming to a more general and insistent demand that men shall have training for their work in life. Since the breaking down of the old order of trade guilds and apprenticeship the need of regular training has long been observed. There is an American notion of long standing which has added to this obscurity. The notion that special training for any particular service is a reflection on the brightness of the person trained. If he had gumption, he would be able to do his work without having to learn how to do it. This does not seem to have been the colonial view, but it grew up rather in the earlier part of the nineteenth century. This crude conceit is now passing away. Training of the highest sort is now provided in the professions, particularly in medicine. Teaching still lags in this respect, but is trying to catch up. The several forms of engineering are already firmly placed on the platform of technical training. As regards the trades, progress has been slow, but progress has surely been making. The idea of specific training has reappeared, but in a different world from that of the trade guilds, with their system of apprenticeship. It is a world of schools. When this age undertakes to rebuild the old, mediaeval idea that each man shall be master of his own craft, it will do it through a system of trade schools. In fact this seems to be what we are coming to: A view of public education which plans to make the schooling of every pupil culminate in training for some occupation in life. We will say to our youth: 'You have left school before school is out if you have not learned in school to do your daily work.'

"Such vocational training is to be postponed as far as possible. It is to rest upon the most extended general schooling which the individual can get, but it is to be the rounding out, the flower and fruit of the general schooling of all. More than this, the two types of education are not to be sharply distinguished one from another. They are to shade into each other, each is to reinforce the other. The ideal of useful occupation will ennoble the more general instruction of the lower

schools, and the ideals of liberal education will ennoble the school of trades. The future artizan will be encouraged to be as much an artist as he can be. Such is my dream. If some of it sounds like what Ruskin or William Morris dreamed a half a century ago, I do not know that it is any the worse for that."²

Here is expressed an advance in thinking over the earlier notion that some form of "practical" teaching of the traditional subjects will prepare the young person successfully to pursue a vocation. It also goes beyond the ideal of a "general" type of vocational education such as many believed manual training to be. It is the concept of vocational education which is sometimes referred to as the "capstone theory." Snedden, contrasting this concept with what he called the "vestibule conception," said: "Men and women whose experiences and prepossessions relative to 'education' have been developed almost exclusively in connection with 'academic' or 'general' education are prone to think of vocational schools as extensions *upward* from schools of general elementary, secondary or collegiate education. For practical purposes such a conception is much less useful and is more misleading than that which regards any particular type of vocational school as an extension *downward* from, or as a *vestibule* approach to, a specific vocation itself."³ The vestibule concept of vocational education is not even yet fully accepted, and most general educators today, who are enthusiastic advocates of vocational education, seem to visualize it in much the same manner as did Professor Brown in 1901. Experience seems to indicate, however, that for many students, who know early in life what vocation they wish to practice, the "capstone" concept is perfectly sound.

Another educator of the early 1900's whose thinking was in advance of that of most of his contemporaries was James E. Russell, Dean of Teachers College. Speaking in 1905 on the subject "The Trend in American Education," after showing the rapid growth of education of college grade from 1640 on, and the political, social, and economic forces which caused development of specific education for the various professions, he said: "There is . . . no end to this development, and there can be no end to it, so long as human needs increase, or differentiate, or become more complex. The greater the need of trained leaders the more positive the tendency to supply

² Brown, Elmer Ellsworth. "Present Tendencies in Secondary Education," *The School Review*, 9:508-09, September and October, 1901.

³ Snedden, David. *Vocational Education*. New York: 1923, p. 89; by permission of The Macmillan Company, publishers. Snedden (1868-) was for many years professor of education at Columbia and best known for his activities as a leader of the vocational education movement in the United States. He contributed many articles, public addresses and books, and was one of the organizers of the National Society for the Promotion of Industrial Education.

them.”⁴ After remarking that “we have a fair beginning, and that not very good,” he severely indicted the whole educational scheme for inexcusable inefficiency. He then said: “I wish to push the indictment one step farther. Our educational system is not only wasteful and inefficient because it is operated at ‘low pressure,’ but it is unfair in that it does not do what the founders of this republic meant that it should do. *It does not give equality of opportunity to all.* This may seem surprising, particularly as we have been boasting for a century of our American liberty, fraternity, and equality. It is the boast, too, of most Americans that our great public-school system—the greatest thing on earth—provides alike for every boy and girl taking advantage of it. This is half true—and dangerous, as all half-truths are. The fact is, the American system of education grants equality of opportunity only to those who can go on to the college and the university. It takes little account of the boy—and less still of the girl—who cannot or does not wish for a higher education. Those who ‘drop out’ at the age of twelve or fourteen, compelled to earn a livelihood, have missed their opportunity. But why? Do we in America have need only of professional men and ‘men of affairs’? Are those who pay the taxes and do the rougher work of life to be denied opportunity for self-improvement? Are only those who can afford to stay in school to reap the advantages of education? In a word, what are we doing to help the average man better to do his life-work and better to realize the wealth of his inheritance as an American citizen? These questions raise the problem of vocational training for those who must begin early to earn their living. It is, in my judgment, the greatest problem of the future, and one which we may not longer disregard and yet maintain our standing as a nation.”⁵

Russell, later in the same paper, wrote: “The serious preparation for practical life begins for the great majority of us at the age of thirteen or fourteen, on leaving the elementary school. The most dangerous period in the life of a boy or girl lies just ahead—say up to the age of nineteen or twenty. This is the time when the average boy must learn to be self-supporting, and when the girl must fit herself for domestic duties. It is the time, too, when technical training counts for most. I contend that every American boy and girl is entitled to practical help in this time of greatest need—and at public expense, too, if the state maintains high schools, universities, and professional schools

⁴ Russell, James E. “The Trend in American Education,” *Educational Review*, 32:31, June, 1906. Russell (1864-1945) was a teacher and public school principal, and professor of philosophy and pedagogy at the University of Colorado from 1895 to 1897. He was professor at the Teachers College of Columbia University and Dean from 1898 to his retirement. One of the most widely known and influential education leaders of recent times. His published addresses on education constitute important contributions to American education.

⁵ *Ibid.*, p. 33-34.

for those who aspire to leadership in professional life. My reasons for this contention are these:

"1. Anything that will contribute to the greater efficiency of the workman is a contribution not only to his own well-being but to the wealth of the nation.

"2. Anything that will lead the workman to take more pride in his work tends to make him a better citizen and a more conservative member of society."⁶

It is to be observed that Russell avoided any explicit comment concerning the old controversial problem of where and how the vocational education of the youth who do not go on to higher education should be given. He implied, however, that a publicly supported vocational program should be provided after the general education of the young person is ended. He was here thinking in terms which were much more in harmony with the specialists in vocational education of that period than with the general educator. He was one of the few leaders who seemed to sense the inconsistency and injustice of spending public funds for the vocational education of those preparing for the "exalted callings" and denying such funds to those engaging in the "less exalted callings."

It is clear, however, that the thinking of the general educator had generally undergone a change since the debates over manual training of the 1880's and early 1890's. The concept of specific vocational education as a public school responsibility had been reached and future controversies over vocational education were to center around that concept. From the early years of the new century the concern was with the problems having to do with when vocational education should be given in the life of youth, where it should be provided, and under what control. The idea of whether it should be provided was rarely to appear after 1900.

In the same year in which Russell wrote his article, quoted in part above, Superintendent William H. Maxwell, of New York City, in his presidential address before the National Education Association, said, "Scientific agriculture, practically taught, is as necessary for the rural school as is manual training for the city school." And a little later, "Nor are our people going to rest satisfied with mere manual training. The Mosely Commissioners pointed out that the great defect in American education is the absence of trade schools. Trade schools will inevitably come. The sooner the better. They are demanded for individual and social efficiency."⁷

⁶ *Ibid.*, p. 40-41.

⁷ Maxwell, William H. "Education for Efficiency" (President's address), *Proceedings of the National Education Association*, 1905, p. 64-65.

The following year Maxwell made a somewhat more explicit statement on the same theme in his "Annual Report of 1906." He wrote: "In former reports I have dwelt upon the wisdom, indeed the necessity, of establishing trade schools as a part of the public school system. There are thousands of pupils who would be much better off learning a trade in school than in memorizing geographical facts or wrestling with the difficulties of Latin grammar. Educators from other lands tell us that the great defect of our public school system is the lack of trade and technical schools. When a leading economist makes the statement, which no one has attempted to contradict, that, of the enormous exports from the United States, not a single article is sold on account of its superior workmanship, it is surely time for those intrusted with educational administration, not in this city alone, but throughout this nation, to take heed whether the fault does not lie with the schools, which have done little for the trades."⁸

It is interesting to note that the year 1906 saw the organization of the National Society for the Promotion of Industrial Education, with Henry Pritchett as its president; the publication of the influential and often quoted "Douglas Report" on vocational education in Massachusetts, and the passage of the bill giving state aid to vocational education in Massachusetts. The National Society was essentially a propaganda organization and worked with great energy throughout the nation during the succeeding years until it succeeded in bringing about the passage of the Federal Vocational Education Act, commonly known as the "Smith-Hughes" law, in 1917, which provided federal funds on a basis of matching dollar for dollar with the several states for the promotion of vocational education in the public schools. Throughout the two decades following 1900 vocational education was kept constantly before the educational leaders and the general public.

From 1906 on, many educators still looked upon manual training as a type of vocational education, and for years to come there was much confusion in the terminology used in discussing the problem of vocational education, but the idea of training specifically for vocations took hold of the thinking of the general educator with ever increasing insistence. The ultraconservatives continued to oppose the idea and the fight was far from won in 1906, but the educational atmosphere was quite different with respect to the obligation of public education to provide some form of vocational training.

Charles H. Keyes, Superintendent of Schools of South District, Hartford, Connecticut, speaking at the National Education Association

⁸ Maxwell, William H. "A Quarter Century of Public School Development." New York: American Book Co., 1912, p. 114.

meeting of 1906, said: "Recognition of the principle that in manual training and industrial education the pupil should be taught to know and to do, as a boy, things which he will have to do as a man, is now widespread. We have ceased to apologize for any special form of manual training having educational value, because it gives a boy the skill of a craft in which he may later earn his living. We are no longer ashamed to acknowledge that many of our pupils are taught in our schools the very art or arts whose exercise in the business world gives them their support. This conclusion is the only justification of the large place cooking and sewing have long enjoyed in the schools of our most progressive cities. Call it trade-school work if you will, but remember that all our girls must be trained for the vocation of homemaker, and be skilled either in practicing these two arts or in the direction, supervision, and training of others in their exercise."

He then argued that the character of the industries should "affect — the forms of industrial education in the schools." Because of the great need for office workers, he said, they stress penmanship and teach stenography, bookkeeping, and typewriting in the schools. Also, "Our evening high school has not hesitated to undertake the training in its shops and drafting-rooms of ambitious young men from the factories. Without conscious formulation of the doctrine that the schools of the community should teach whatever the business of the community demands in a large way, we have accepted it in our practice."⁹ One scarcely needs to point out that this constitutes a complete reversal of the prevailing idea of the 1880's, and further expressions will show that Superintendent Keyes was giving voice to the thinking of a representative and influential group of general educators.

During this period of educational history the term "industrial education" was frequently used to include all forms of practical arts and vocational education of less than college grade, and occasionally to include certain phases of vocational education of college grade. For example, Superintendent O. J. Kern, of Rockford, Illinois, speaking at the same convention on "What Form of Industrial Training Is Most Practical and Best Suited to the Country Child," listed agriculture, manual training, and domestic science.¹⁰

L. D. Harvey, Superintendent of Schools of Menomonie, Wisconsin, speaking at the 1907 convention of the National Education Association, after pointing out the need for training youth to make a living, mentioned the complaint of manufacturers that "there is a dearth of

⁹ Keyes, Charles H. "Forms of Industrial Education Best Adapted to City Children," *Proceedings of the National Education Association*, 1906, p. 204.

¹⁰ Kern, D. J. "What Form of Industrial Training Is Most Practical and Best Suited to the Country Child," *Proceedings of the National Education Association*, 1906, p. 198.

men whose training has been sufficiently broad in a particular line of work in which they are engaged to fit them as foremen, and department superintendents, and they are demanding that some means shall be provided to prepare young men more adequately for effectiveness in the industrial field." He then said manufacturers and other men of affairs "are awakening to the conditions which exist in some of the other countries of the world, especially in Germany, due to the establishment of numerous trade and technical schools, and are recognizing that our educational system makes no adequate provision for giving such training, and that with the going out of the apprenticeship system nothing has been provided to take its place." Further, he said, "In recent years educators have been studying this problem and a marked change is evident in their view of the inadequacy of our present educational system. They are coming to recognize that the fundamental thing in educational effort is to develop the capacity to earn a livelihood. Because further development along cultural or other lines is conditioned by the capacity of the individual to support himself, they are recognizing that this demands the introduction of industrial education in training young people to do something with their hands, as well as to know something of what other people have thought and done."¹¹ He then urged the establishment of vocational schools in the cities to meet this need.

Andrew S. Draper, Commissioner of Education of the State of New York, said, in 1908: "It is imperative that there be a closer adaptation of schools to situations, and that schools have more and longer control over children and move forward to definite ends. There is being much said now, and it is necessarily said, about the development of technical and trade schools in the towns. But that is but one manifestation of a wider difficulty.

— "The schools must meet the needs of a particular people, whether those needs are high or low, academic, professional, commercial, agricultural, or manufacturing. We cannot expect the people to adjust themselves wholly to schools. We must adjust the schools in very considerable measure to people."¹² Draper was a most outspoken advocate

¹¹ Harvey, L. D. "The Need for Special Classes," *Proceedings of the National Education Association*, 1907, p. 311-12. Harvey (1848-1922) was a teacher, and in 1873 became Superintendent of Schools at Sheboygan, Wisconsin. He was Principal of the Milwaukee State Normal College from 1892 to 1898, State Superintendent of Public Instruction in Wisconsin from 1899 to 1902, and President of Stout Institute after 1908, continuously to his death. From 1908 to 1909 he was President of the National Education Association and leader of note, particularly in the Midwest.

¹² Draper, Andrew S. "Desirable Uniformity and Diversity in American Education," *Proceedings of the National Education Association*, 1908, p. 224. Draper (1848-1913) was a prominent lawyer, politician and educator in New York. In 1886 he was elected State Superintendent of Public Schools. In 1892 he became Superintendent of Schools in Cleveland, Ohio, and in 1894 became President of the University of Illinois. In 1904 he returned to New York as Commissioner of Education. He was a writer and editor of note, and was recognized as a fine speaker and an able administrator.

of vocational education. His utterances here and elsewhere clearly show his liberal and intensely democratic conception of public education, and his views were consistent with reference to all levels from the elementary school through the university. At the same convention (1908) he gave an address on "The Adaptation of the Schools to Industry and Efficiency," in which he presented the idea of two special types of industrial schools. His proposal is a quite unusual one and exhibits a concept of vocational needs remarkable for the time. He said: "It is time to organize a wholly new order of schools as a part of the public school system. We may separate the new order into two general classes. One class may train all-round mechanics for work in factories, where workmen act in co-operation, where each is part of an organization, and where much machinery is used, and these may be called factory schools. The other class may train mechanics who work independently, mainly with their own tools, and without much machinery, and these may be called trade schools.

"We say 'a new order of schools' because the new schools ought to be sharply distinguished from any schools that are now known in America. They ought to be wholly apart from the manual training schools. They will have a distinctive individuality and a definite object of their own. They are neither, primarily, to quicken the mentality nor to develop culture; those things will come in the regular order. The 'culturists' are not to appropriate these new schools. They are not to train mechanical or electrical engineers; the literary and technical schools are doing that very amply. They are not even to develop foremen; leaders will develop themselves for they will forge ahead of their fellows by reason of their own ability, assiduity, and force. The new schools are to contain nothing which naturally leads away from the shop. *They are to train workmen to do better work that they may earn more bread and butter.*" He further said: "These schools will have to be an integral part of the public school system, for the double reason that they cannot be successful without articulating with that system and that they will not be accepted either by capital or organized labor without standing upon a legal footing which is independent of both and fair between them."¹³ This address shows a grasp of detail and a recognition of the conditioning factors in the situation most unusual among general educators when thinking about vocational education. It expresses, as have the utterances of few educators dealing with the subject, a type of thinking which starts with ascertainable facts rather than with theories and prejudices.

¹³ Draper, Andrew S. "The Adaptation of the Schools to Industry and Efficiency," *Proceedings of the National Education Association*, 1908, p. 74-75.

One of the outstanding leaders in the discussions of vocational education during the early 1900's and a most forceful writer and speaker was Dean Eugene Davenport, of the University of Illinois. He was a most outspoken opponent of the idea, expressed above by Dr. Draper, of separate vocational schools. Because of the important part played by Dean Davenport in the development of vocational education in the United States and the clarity of his thinking, an extended reproduction of his remarks is appropriate. Speaking before the Society for the Promotion of Agricultural Science, in 1907, he argued against special agricultural high schools and for unified high schools which meet the needs of the communities they serve. "The demand for education in agriculture has come to stay. Indeed, it is but a part of a larger movement for industrial education; meaning by that, education with a view to some form of useful service in the fundamental industries as well as in the so-called learned professions. This demand has not only come to stay, but it has the sympathy and earnest support of the masses of the people and the very large majority of our best educators."¹⁴

Speaking before the National Education Association Convention of 1909, Dr. Davenport argued eloquently that universal education, to which all are committed, must involve all kinds of education to meet the needs of all kinds of persons. "Now, no system of education, however good in itself, can claim to be or hope to become universal if it does not touch and benefit all classes of men and all legitimate branches of their activity, both industrial and non-industrial, vocational and non-vocational. Indeed universal education means exactly what it says—the education of all sorts of men for all sorts of purposes and in all sorts of subjects that can contribute to the efficiency of the individual in a professional way or awake and develop the best that was born into him as a man and a human being."

Again, he said: "And so I lay down the proposition that whether the education be industrial or otherwise vocational, it is but a part, though an essential part, of the education of a man, and that all these specialized forms of vocational instruction are but different phases of our great problem of universal education, to which we as a people are committed.

"But no scheme of education is truly universal or can hope to become so until it not only touches and uplifts all classes of men but also touches and uplifts their industries as well; for it is not expedient that men should desert industry as soon as they are educated, but rather that they should remain and apply their education to the de-

¹⁴ "History of Agricultural Education of Less Than College Grade in the United States," *United States Office of Education Bulletin*, 1942, Vocational Division Bulletin No. 217, Agriculture Series No. 55. Washington: Government Printing Office, 1942, p. 125.

velopment of the industries, that the people may be better served and the economic balance of things be not disturbed by the evolution of an educational system aiming to become universal."

Among his numerous references to the undesirability of separate vocational schools, he said, "We can combine the vocational and the non-vocational in our high schools if we will and each be the better for the other." And later in his address he said: "If we will honestly take into our high schools, as we have taken into our universities, all the major activities, splitting no hairs as between the industrial and the professional, for no man can define the difference, so imperceptibly do they shade the one into the other — if we will take them all into the high school as we have already taken them into the universities, and carry them along together, the vocational and the non-vocational side by side, day by day, from first to last, so the boy is never free from either, then will all our educational necessities be met and we shall have gained a goodly number of substantial achievements, prominent among which I would mention the following:

"1. One-fourth of the time of the boy or girl could be devoted to vocational work in classroom or laboratory throughout the course.

"2. This would turn out every boy with some skill in some branch of the world's work, and do away with that large and growing number of young high-school graduates who are fitted for nothing and are good for nothing in particular.

"3. It would attract the attention of the boy to self-supporting activity before he loses his natural ambition by too much schooling with no initiative.

"4. It would turn out girls with some training in household affairs, and those who desired it, in such occupations as women follow for self support.

"5. It would vastly uplift most occupations and all of the more ordinary industries by bringing into their practice the benefits of trained minds and methods.

"6. It can do all this and still leave three-fourths of the time for the acquisition of those non-vocational lines of knowledge which all men and women need, because they are human beings getting ready to live in a most interesting world.

"7. In this way, we should have a single system of education under a single management, but giving to all young men and women really two educations; one that is vocational, fitting them to be self-supporting and useful, the other non-vocational and looking to their own development."

Then as a sort of final defense of his proposals, he said: "I am perfectly well aware that all this will be held by some as lowering of standards and a degrading of education by commercializing it. Against this conclusion I protest most emphatically. Does it degrade a thing to use it? Does it degrade religion to uplift the fallen or to sustain the masses of men from falling? Is education a luxury to be restricted to a few favored fortunates or is it a power to uplift and sustain and develop all men?"¹⁵

At the National Education Association convention of 1910 a most elaborate report on "Industries in the Secondary School" was presented by a committee. This report was intended to be a comprehensive study of the whole problem of industrial education in the secondary schools, and it provoked much discussion. A comment in the report, suggesting the thinking of one faction, or group, of educators, is worthy of quotation here. "Many schoolmen who are deeply concerned with the problem of secondary industrial and technical education do not take the point of view so ably presented by Professor Davenport. They feel that there is a conflict within the inner life of the present high school; that the aim and organization of this school were designed for literary purposes and that the aim and the organization of the high school for technical, scientific, and commercial purposes are so different that it is almost impossible to unite these aims in one school. They feel that the modern high school is endeavoring to serve several interests, where the organization was created solely for one, viz., literary education for the professions. Figuratively speaking, the house was originally built to accommodate one family, whereas it is now proposed that it be extended to hold several families, each one of which requires different accommodations. Since much of the work has to be done with the same facilities, which are not always suitable for the needs of all these families, there is unavoidable friction, loss of time, and weakening of forces.

"The men of this group feel that there should be distinct differentiation in secondary education and that each school should have its own line of work appropriate to the special demands placed upon it. The field of secondary education, they urge, is becoming so large and its influence upon national life so important that the classical or literary high school, or even the manual-training high school, is no longer able to do justice to the full demands of secondary industrial and technical education."¹⁶

¹⁵ Davenport, Eugene. "Industrial Education a Phase of the Problem of Universal Education," *Proceedings of the National Education Association*, 1909, p. 277-88.

¹⁶ "Report of Sub-Committee on Industrial and Technical Education in the Secondary School," *Proceedings of the National Education Association*, 1910, p. 741-42.

This difference of opinion concerning special vocational schools has continued to the present. For a time the question involved the problem of "unit vs. dual control," that is, whether there should be two school systems, one dealing with general education and the other, above the elementary school, dealing with vocational education. This controversy appeared to be settled in 1913 with the failure in Illinois of proposed legislation for a "dual" system of public secondary schools. However, the development of the National Youth Administration schools, the Civilian Conservation Corps, and the educational program of the Works Progress Administration suggested to educators that the matter was not finally settled, and current consideration (1945) of universal military training of youth brings up again the concept of more than one public education system.

By 1910, whether vocational education as a public school enterprise was to be provided in special schools or in general high schools, the idea of the life-career motive in secondary education was accepted by many general educators and was beginning to play an important role in the educational thinking of those responsible for the management of the public schools. At least one famous general educator not connected with public education gave clear expression to that idea as well as to the general concept of vocational education as an important obligation of the schools. Charles W. Eliot in an address before the National Education Association convention of 1910 said, after an eloquent discussion of the value of the life-career motive in education and the importance of vocational education, "Many other organizations and instrumentalities will share in the good work, but the free public-school system should be the chief field of this great reform. The ample and discriminating report recently published by this Association's Committee on the Place of Industries in Public Education exhibits the immense confusion of nomenclature, opinions, plans, and efforts which clouds the subject of industrial education, but out of this confusion emerges one unifying and integrating conception—that of the supreme value of the life-career motive in the life-long process of education." He concluded with a quotation from Carlyle's address to the students of the University of Edinburgh in 1866, when he told them, "what a man is born to, in all epochs." "He is born," he said, "to expend every particle of strength that God Almighty has given him, in doing the work he finds he is fit for; to stand up to it to the last breath of life, and to do his best."¹⁷

¹⁷ Eliot, Charles W. "The Value During Education of the Life-Career Motive," *Proceedings of the National Education Association*, 1910, p. 133-41. Eliot (1834-1926) was President of Harvard and the most influential educational leader of his day. He reorganized Harvard and established important graduate colleges. He was known for his advocacy of the elective system. He was much in demand as a lecturer and writer. His influence was very great in the development of modern secondary and college education.

The major concern, however, during the first two decades of the new century continued to be whether the unified school is more desirable than separate schools for general and for vocational education. Samuel Avery, Chancellor of the University of Nebraska, speaking on the subject "Can We Shorten the Term of Years Without Decreasing Efficiency of Education in American Schools," said of the problem of vocational education: "While I would emphasize the need of an early selection of the pupil's probable career, I would not advocate separate secondary schools for agriculture, domestic science, and the trades. We find that the best work in law, in engineering, in medicine, in agriculture is done in universities and not in disconnected colleges. So the high schools should have different sections. No attempt should be made to convert the high school into a fitting school for the college. It is equally undesirable that high schools should pay no attention to the colleges but train exclusively for the active duties of life. The high school can and must perform both these functions. Let the high school be a true people's university, completing the education of those pupils whose period of study will not be more than ten or twelve years, and fitting for further study those pupils whose work in life requires a longer period of instruction."¹⁸

James H. Baker, President of the University of Colorado, speaking on "Reorganization of American Education," in 1911, said: "The problem of reorganization includes very distinctly vocational education, and only a beginning has been made in this country. . . . The material interests of the country must be promoted by the extension of commercial, industrial, technical, and trade instruction. The rights of the individual and the welfare of society require practical training leading toward useful occupations for a large class of youth whose period of education is limited. There are two views of the means of accomplishment. A large number would provide separate schools. The more conservative would relate all such work to the regular schools, select the industries emphasized in each locality, and make the training for them merely preparatory. This special work would be elective, and occupy about one-fourth of the school time. Preparatory industrial courses are placed at the age of twelve to sixteen; trade courses, as such, leading to apprenticeships, at sixteen to eighteen. It will be seen that the time scheme, previously discussed, making the high school period twelve to eighteen with two divisions — four years and two years — readily adapts itself to these needs. . . .

¹⁸ Avery, Samuel. "Can We Shorten the Term of Years Without Decreasing Efficiency of Education in American Schools," *Proceedings of the National Education Association*, 1911, p. 131-32.

"I believe that most progressive men, who represent high schools and colleges, in a general way, take the affirmative of this question. They also stand for the professional and technical side of universities. Many university colleges are 'vocalationalizing' the last two years, allowing or requiring students to choose studies leading to engineering, medicine, law, teaching, business, or at least to select a particular line of culture.

"But men who take a broad view cannot go the entire way with the radicals. To begin industrial training before the foundation of education is laid, teach the principles of science only as growing out of industrial needs, or the applications of science without science, to yield children to the merciless demands and economics of trade, to provide vast and expensive special equipments of every kind, when the great problem is to connect all vocational training with existing plants and actual industries, to ignore all culture and deny the possibility or value of general education — these are at least objectional propositions."¹⁹

The last paragraph of this quotation exhibits a type of thinking occasionally found today among general educators. It shows an amazing lack of understanding of both the purposes of leaders in vocational education and the magnitude of the problem of vocational education. The assumption that vocational education is concerned only with training machine operators in great industrial establishments is apparently the error that betrays the thinker into the absurdity expressed. President Hutchins of the University of Chicago recently made a similar remark to that of Baker's last paragraph, indicating the same type of uninformed and superficial thinking. Responsible leaders in the field of vocational education have never, in the United States, advocated beginning vocational education "before the foundation of education is laid"; nor have they expressed any purpose or desire "to yield children to the merciless demands and economics of trade," nor "to ignore all culture and deny the possibility or value of general education." What President Baker meant in 1911 by "radicals" is, of course, not known to the present writer, but the literature of vocational education does not reveal such ideas as those ascribed to the "radicals." The more serious error in his understanding of the problem, however, lies in his assumption that all vocational education is concerned with train-

¹⁹ Baker, James H. "Reorganization of American Education," *Proceedings of the National Education Association*, 1911, p. 99-100. Baker (1848-1925) was a school teacher and Principal of the Denver (Colorado) High School in 1894 and for seventeen years. He was President of the University of Colorado for twenty-two years. He proposed the creation of the "Committee of Ten," and in 1907 the "Committee on Economy of Time in Education," of which he became chairman. The report of this committee played an important part in the development of junior high schools and junior colleges. He was the author of numerous books, and President of the National Council of Education in 1892 and of the National Association of State Universities in 1907.

ing factory "hands" or semiskilled operatives of large plants. He, as have some others of the present, overlooked all the custom trades such as, carpentry, brick-laying, watch-repairing, tailoring, electrical work, sign-painting, and numerous others; and he predicates, as does Hutchins and a few others of today, his generalizations concerning vocational education upon a single phase of industrial education, thus leaving out of account the entire vocational-education areas of agricultural education, homemaking education, business education, and the general field of technical education of sub-engineering and college grade which cuts across all these areas. It is the inability, or unwillingness, to keep in view the whole problem of vocational education when generalizing about it, that so often causes such statements of general educators to seem "academic" and unrealistic.

The intensity of feeling among educators concerning the concept of a dual scheme of secondary education is suggested by a comment of John Dewey during the legislative debates over this question in Illinois in 1913. He said: "No question at present under discussion in education is so fraught with consequences for the future of democracy as the question of industrial education. Its right development will do more to make public education truly democratic than any other one agency now under consideration. Its wrong treatment will as surely accentuate all undemocratic tendencies in our present situation, by fostering and strengthening class divisions in and out. It is better to suffer a while longer from the ills of our present lack of system till the truly democratic lines of advance become apparent, rather than separate industrial education sharply from general education, and thereby use it to mark off to the interests of employers a separate class of laborers." He then made a most earnest plea for the defeat of the bill providing for a dual scheme of education in Illinois.²⁰

Edwin G. Cooley, former superintendent of schools, Chicago, the author of the Illinois proposal, replied to Dr. Dewey in a somewhat extended statement in the *Vocational Education* of September, 1914. In his reply he said: "The plan proposed . . . is an attempt to complete the present system of schools by providing a finishing school for the youth between fourteen and eighteen who are unable or unwilling to continue longer in the present elementary or secondary school. It aims at giving direct and practical assistance to young persons *in or intending to enter* all sorts of vocations — such as agriculture, industry, commerce, and home-making. It does not attempt to reorganize or reform present systems of schools, but to supplement them by providing a system of schools that will do for the ordinary vocations what

²⁰ Dewey, John. "An Undemocratic Proposal," *Vocational Education*, 2:374, May, 1913.

we now do, by means of our high schools and universities, for a very small class in the professional and managerial positions—to supply, on the basis of the elementary school instruction, an application of science and art to the various occupations of men and women.”

He further remarked: “The ultimate aim of these schools is character development and civic efficiency, gained thru the increase in the personal efficiency of the pupils. Joy in work, the result of efficiency in work, satisfaction in doing a good job—is an absolute essential to contentment, happiness, honesty, and self-respect. A people performing its daily work with the feeling that it is drudgery to be gotten thru with for the sake of some satisfaction to follow, is doomed to disappointment, dissatisfaction, and degeneration.”

Referring specifically to one of Dewey’s objections, he said: “Dr. Dewey says that ‘those who believe in the continued separate existence of what they are pleased to call the “lower classes,” or the “laboring classes,” would naturally rejoice to have schools in which these classes would be segregated.’ The plan proposed makes no attempt to classify children, or determine who shall enter one or the other type of school. The vocational school begins its work where the other leaves off. It simply takes those who are not in any school and tries to help them. Like all efficient agencies, these schools must separate children into divisions on the basis of difference of purpose. In this they act like every other form of schools.”

When reading the controversial material dealing with the proposals of Cooley and the Chicago Commercial Club one can not easily refrain from speculating as to what the educators of the 1870’s and ’80’s, who insisted that vocational education must not invade the “common schools,” would think of the proposal for a separate system of vocational schools as advocated in the Illinois bill. At least one of them, Butler, is quoted by Cooley as saying “in an address before the Commercial Club of Chicago that this vocational preparation ‘had to be done by somebody for whom this task was the chief and dominant purpose.’ ” He quotes Butler, further, as saying: “All the leading men in the Ministries of Education in Prussia, Bavaria, and Saxony speak in the highest terms of this movement (vocational preparation); they are very proud of it, but they also tell us that they themselves could not have accomplished it.”²¹ It seems clear that educators in 1914 were, for the most part, thinking in much larger and more democratic terms of the responsibility of public “common” education than were the educators of 1870 and 1890.

²¹ Cooley, Edwin G. “Professor Dewey’s Criticism of the Chicago Commercial Club and Its Vocational Education Bill,” *Vocational Education*, 3:25, 28-29, September, 1914.

A somewhat different emphasis in the thinking of the period is expressed in a report in 1914 of the Carnegie Foundation for the Advancement of Teaching. There the need for separate schools seems to be accepted but the "regular" schools must lead toward the vocational school. The report makes use of an unusual distinction between the terms "education" and "vocational education." It stated: "Inaugurating a school system as an agency of civilization, the modern democratic state has in view two distinct objects: first, to develop the mind and the spirit of the youth, to teach him self-control, and thus to fit him for citizenship. This is generally understood as education. Secondly, it is the purpose of such a state to fit each child to become an effective economic unit in the state's life. This is vocational education. The state must have both ends in view and must aim to serve them both, but it must also be careful not to confuse them. It is not possible to turn the elementary and secondary school into mere training-places for the vocations. To do this is to abandon the chief purpose for which these schools exist. On the other hand, it is hopeless to expect that a boy or girl will look toward the vocational school so long as it is wholly unrelated to and separate from the common school system. In other words, the vocational school must have its roots and growth in a common school system, which, while its main purpose is to educate, still educates its pupils into an appreciation of the economic conditions and problems of their own countryside. The elementary school must develop the sympathy of the child for the community in which he lives, if it hopes to guide him successfully to a vocational school which shall prepare him for a useful life in that community. Today the elementary school guides him away from any such vocational ideal. It does not interest its pupils in the trades that they see about them, and a school intended to train for such trades has no connection with the common school system. There is no door by which the boy passes easily from the one to the other. It is a part of the difficult problem of every modern state both to educate for life and to train for economic productiveness, to develop both the general system of schools for citizenship and a series of special schools or courses for vocations; to have each system of schools sympathetic and helpful to one another yet not to confuse the two purposes."²²

Beginning about 1907 when the first bill was introduced into the Congress to give federal aid to vocational education a new idea was injected into the thinking of educators, namely, that of federal aid for vocational education. That idea has constituted a primary center of

²² "Education in Vermont." New York: Carnegie Foundation for the Advancement of Teaching Bulletin No. 7, Sect. IV, 1914, p. 125-26.

controversy among educators, concerning vocational education, from that time to the present.

By 1915 the concern was not so much whether vocational education should be a matter of public-school work; that seemed to be rather generally accepted by that time, but the debate was over control. There was still some sentiment for the "dual system" of education among vocational-education leaders; but after federal legislation became the issue the general educator was anxious to have legislation passed that would ensure his control of vocational education. It is interesting to note that federal legislation was promoted chiefly by labor, manufacturers, publicists, agricultural leaders and certain vocational-education leaders rather than by the general educators. It is also of interest that the congressional debates were concerned primarily with states' rights and the economic aspects of vocational training rather than with the educational policies involved. This is reminiscent of the debates over the Morrill Act, which, as suggested earlier, did not turn on educational questions but rather on land policies.

In 1915, John Lapp, Director of the Bureau of Legislative Information of Indiana, in an extended address before the National Education Association on "National Aid for Vocational Education," after stating that a bill was pending before the Congress calling for federal aid for vocational education, quoted a federal commission as saying that "not more than one person in a hundred has been trained properly for the work they are doing." Also, said the commission, "more vocational schools are found in the city of Munich, Germany, than in all the great cities of our country put together." Lapp then said: "Besides the duty that this democratic nation owes to every one of its children, the need for vocational education is a national one involving as it does our success in our relations both to foreign countries in trade and commerce, and to our social and economic problems at home. In the future struggles for commercial supremacy in the world's markets that nation will win, and will deserve to win, which makes the best goods at the lowest price. Dependence upon supplies of raw materials is only a temporary advantage which does not count in the century-long commercial struggles before us. In fact, only a part of a century will be needed to remove the advantage which we now possess in our supplies of raw materials, unless we reform our wasteful and ignorant methods of mining, lumbering, and farming, and of utilizing the products of mine, forest, and field."²³ This address is typical of many in advocacy of federal aid in the promotion and development of vo-

²³ Lapp, John, "National Aid for Vocational Education," *Proceedings of the National Education Association*, 1915, p. 325.

cational education. There was much concern, however, among general educators over possible federal control of education and whether federal aid might open the way for a "dual system" of education.

In the resolutions adopted at the 1918 session of the National Education Association appeared this sentence: "The Association favors amending the Smith-Hughes Act to prevent the possibility of establishing a dual system of schools in any state." The general educator has never been particularly happy over the Smith-Hughes law, but he, for the most part, has recognized that the forces which placed the law on the statute books and welcomed the federal aid in the states are too great to be opposed successfully. Few educators were able to see in the law a rebuke for their slowness in recognizing and effectively meeting an obvious educational need. Most leaders continued to advocate vocational education but to criticize the principle of federal aid for "special forms" of education. Yet few showed any inclination to do anything or to think through to a conclusion any means for providing vocational education by other ways than by federal aid. Throughout the first two decades of the new century, however, the general educator was clearly thinking in broader terms about the implications of a democratic education, and he was trying harder than before to relate vocational and cultural education in such an education. David Spence Hill, then of the University of Wisconsin, writing in *School and Society* in 1917, said: "Public education as a deliberate attempt upon the part of the state to change and mold human beings can have no narrow aim, restricted ideals, or be an exclusive privilege of caste, or sect, or wealth, or of poverty. The process touches all ages of men, both sexes, all races, and is to be articulated with all useful occupations of agriculture, forestry, animal husbandry; of the extraction of minerals; of the manufacturing and mechanical industries of the factory, building or hand trades, of commerce, of public service, of professional service, of domestic and personal activities; or with the merely clerical occupations."²⁴

William L. Ettinger, Superintendent of Schools, New York City, said in an address on "The Life-Career Motive in Education," "I hold no brief for a type of education in which culture and utility are mutually exclusive. An educational program founded upon the life-career motive does not imply a scheme of gross utilitarianism. There is no divorce between labor and culture. In this materialistic age we must hold fast to our cultural heritage, but above all we must not fail to afford that equality of educational opportunity which is the

²⁴ Hill, David Spence. "Education for American Democracy," *School and Society*, 5:693, June 16, 1917.

fundamental thesis of democracy. Our ideal must be service rendered loyally and generously. There can be no conflict between the educational needs of our people and the demands of the government. To the extent that our school systems are responsive to and coextensive with the fondest hopes and the highest aspirations of our people, they constitute a bulwark against which no liberty-killing militarism will ever prevail."²⁵ (This was spoken during the closing year of the first World War.)

Educators during this period seemed conscious of their broadening concepts of the function of the school and in at least one instance a most interesting account was given of the evolution of the thinking of the educator. In spite of a terminology that is no longer used with reference to practical arts and vocational education and some questionable statements of fact, it is sufficiently significant to justify a somewhat extended quotation here. It is found in a most interesting and stimulating chapter in a book entitled "A History of Education in the United States Since the Civil War," by President Charles Franklin Thwing of Western Reserve University. The chapter of special interest is headed "Material Education" and states, in part: "One of the most impressive developments of the past generation lies in the introduction of what I call material education. Material education begins with manual training. Manual training has been evolved into industrial education. Industrial education has passed over into certain vocational schools. The series is impressive.

"The difference between manual training and industrial training is significant." He then gives an extended quotation from Paul Hanus' book on "Beginnings in Industrial Education and Other Educational Discussions."

But, the most significant portions of the chapter are those in which he attempts to account for the rise of "material education" in the United States. He says: "One cause is found in the passing of education over from the political to the economic basis. The first concern of a new commonwealth is its political constitution. Its political orderliness and effectiveness are necessary to further development. The arguments more commonly adduced one hundred years ago in favor of public education had their origin in the political salvation of the state. These conditions were simply a continuation of the Declaration of Independence and of the Bills of Rights of the new commonwealths. The debates preceding the Civil War were political debates, and the

²⁵ Ettinger, William L. "The Life-Career Motive in Education," *Proceedings of the National Education Association*, 1918, p. 45.

conclusions of that contest settled many political concerns. Since that time the interests of the people have steadily moved away from political and moved toward economic and allied questions of the social sciences. The leadership in education was sympathetic, as educational leadership always is, with the judgments and feelings of the people. As the thought of the people became more devoted to economic concerns, education also took on economic relations. Those relations have developed the type of education known as industrial."

He then suggested the following other causes of the rise of "material education":

1. Increased emphasis upon the idea of efficiency. "The cultivation and development of the powers of the pupil were conspicuous ideas of the earlier methods. These aims are still regnant; but efficiency, the power to do, have also become rallying cries. If the former type were statical, the latter is dynamic. The industrial school is, in the public interpretation, directly affiliated with the idea of efficiency."

2. The complexity of modern life. "In the consequent growth of specialization, therefore, the demand has resulted that each man shall be peculiarly prepared to make his unique offering to the comfort and the enlargement of the individual and of the community."

3. The passing of individualism. "The communistic idea, in both its good and its bad sense, has risen as a social concept and as a social force. The great man was never so important as he is now, but the ordinary man has not for three hundred years counted for less. The importance of the training of the individual for his work has suffered. The result is that the old apprenticeship system has quite passed away. The state, therefore, has found itself obliged to take up the question of the most economical and the most effective method of training men for the pursuit of its many and diverse forms of service. Hence has sprung the origin of the whole industrial movement."

4. The "breadth and swiftness" of the industrial "movement has been promoted by the general scientific progress." He referred to the close and necessary relationship of science to industrial progress.

5. "A further reason for the rise of the industrial movement lies in the emergence of a new psychological doctrine. This doctrine is nothing less than revolutionary." He referred to "the discoveries of Broca, Wernicke, and their successors [who] gave the last blow to the old doctrine of mental 'faculties' . . . and in so doing established a strong presumption against the whole theory of 'formal discipline.'"

6. A sixth cause was the development of new materials of construction and manufacture.

7. A last cause was the tremendous elimination of children from the school unprepared to do any useful work.²⁶

Notwithstanding inaccuracies and doubtful conclusions the effort to marshal the forces which changed the thinking of educators with reference to "material education" is an indication of the more realistic attitude of educators during the period beginning about 1900. It suggests also the growing consciousness, on the part of the general educator, of the social and economic obligations of the public school, which throughout most of the earlier years had concerned itself primarily with "personal culture."

Of numerous quotations indicating the thinking of the general educator during the two decades 1900 to 1920, which are available from many sources, perhaps no more important selection could be made to present as the closing statement for this period than parts of an address by Homer H. Seerley, President of Iowa State Teachers College, in 1914. It seems to typify the thinking of leading educators generally who had tried to understand the meaning of the "vocational movement" in public education. He said, in part: "The alleged conflict between so-called vocational and so-called cultural education should be considered more one of adjustment and interpretation than one of controversy and debate. Much of the supposed contention that is inferred is more imaginary in character than real in substance; it is a struggle more for the recognition of greater ideals and more remarkable accomplishments than for supremacy of authority in management and control. Every generation must seek to improve and to perfect the education of the youth of its time, in accordance with the actual needs and with the existing standards recognized, because, as civilization advances and expands, education and training must be modified and reorganized. . . ."

Further, he said: "The terms 'vocational education' and 'cultural education' have meant different things in different ages and among different peoples because they always represent in language relative distinctions rather than absolute distinctions."

And finally, ". . . the movement toward vocational education is not of temporary character or of uncertain direction. It carries with it the welfare and success of the masses. It is not a panacea for the ills of society. It is not an absolute substitute for, or an adopted equivalent of, the education of the past. It does not seek to eliminate or to annihilate culture and taste. It is no enemy of the great province held by the

²⁶ Thwing, Charles Franklin. *A History of Education in the United States Since the Civil War*. New York: 1910, p. 213-28; by permission of Lothrop, Lee and Shepard Co., publishers.

education of the older days. It does not claim to be more valuable or to be more necessary than such education. It simply urges that the many be considered and remembered without forgetting the benefits and ideals of the few. These undertakings are not mistakes, they are not errors of judgement, they are not unwise and unreasonable notions of training; they are full of reality, of sincerity, and of efficiency, and they should be welcomed as factors in making a more complete people in a more complete civilization."²⁷

These two decades are very significant years in the history of vocational education in the United States, and in the development of the thinking about vocational education by the general educator. During the period the professional vocational educator was given birth and he gradually became the chief spokesman for the interests of vocational education. Also in these years a great world war was waged, the first in history which depended chiefly on technical training and scientific equipment. Industry and agriculture were for the first time fully convinced, by war pressures, of the importance of vocational training for their workers. The Federal Vocational Education Act was passed during the period and vocational education became firmly established as a public school function. Some educators became alarmed over a possible too great enthusiasm for vocational education and many questioned the wisdom of federal aid and greatly feared a growing federal control. The period closed, however, with a general advocacy of vocational education as a function of public education and a marked acceptance of much broader concepts of the meaning of democracy in education.

²⁷ Seerley, Homer H. "Harmonizing Vocational and Cultural Education," *Proceedings of the National Education Association*, 1914, p. 378-80.

CHAPTER VII

EMERGENCE OF THE IDEA OF VOCATIONAL EDUCATION FOR ALL YOUTH AS A PUBLIC SCHOOL RESPONSIBILITY, 1920 TO 1945

DURING the twenty-five years from 1920 to 1945 increasing emphasis upon the economic aspects of education seemed to characterize much of the thinking of educators, and a consequent advocacy of expansion of the program of vocational education was observable. There was also evident, however, a growing uneasiness over the possible overemphasis upon vocational education to the detriment of general education. As a result there appeared among general educators many expressions of an appreciation of the urgent need for more vocational education in the schools, but usually with a caution concerning the necessity of integrating the several aspects of one's total education, and especially of avoiding neglect of the cultural and civic development of youth. This attitude was rather generally expressed by leaders of general education throughout this period.

The report of the resolutions committee of the National Education Association convention of 1920 set forth clearly the thinking of many general educators of the early 1920's concerning both major concepts mentioned above as being characteristic of this period. It states in part: "The National Education Association affirms and forcibly emphasizes the high significance of the economic factor in both national and individual life, and therewith the signal importance of vocational training in raising personal efficiency and augmenting the total output of the energies properly directed into channels of industry and commerce; and it insists and urges that the whole educational system must be organized and actuated with proper regard to the practical, vocational, and professional needs of the individual and of the community at large. At the same time the National Education Association recognizes the old and immutable truth that no kind, amount, or degree of merely material prosperity or success can satisfy the fundamental and inextinguishable craving of the human spirit, or can fulfil the needs of the individual in his life as an active citizen of a democratic country or meet the demands of the state for that service which will preserve and advance the social and political as well as the economic welfare of its people. The National Education Association regards with deep and anxious concern the multiplied tokens of a widespread lowering of recognition of intellectual efforts and achievements, of a growing impatience with all forms of mental effort, and, especially, of that effort which does not issue in prompt and abundant sensible and

material returns; of a general distrust of thought and a general eagerness for action; of an increasing tendency toward decreasing the amount and quality of service performed for the increased rewards already given.

"Therefore, the National Education Association would stress the crying need that general or cultural education must not be overshadowed by vocational training; that on the contrary it should be emphasized and strengthened and animated along the whole front of educational activity; that in the changed order of things of today there is still no excellence without labor and that no adequate education can be secured by the youth of America without paying the price in the long hours and years of hard intellectual effort."¹

A similar expression is found in a report by William B. Owen, Chairman of the Commission on the Reorganization of Secondary Education. After quoting the seven "Cardinal Principles of Secondary Education," he said: "This commission holds that education is essentially a unitary and continuous process, and that each of the objectives defined above must be recognized throughout the entire extent of secondary education. Health needs are evidently important at all stages; the vocational purpose and content is coming properly to be recognized as a necessary and valuable ingredient even in the early stages and even when specific preparation is postponed. . . .

"Furthermore, it is only as the pupil sees his vocation in relation to his citizenship and his citizenship in the light of his vocation that he will be prepared for effective membership in an industrial democracy. Consequently, this commission enters its protest against any and all plans, however well intended, which are in danger of divorcing vocation and social-civic education. It stands squarely for the infusion of vocation with the spirit of service and for the vitalization of culture by genuine contact with the world's work."²

As the nationwide program of vocational education developed under the aid and encouragement of the federal government and of a growing literature produced by an ever increasing group of trained specialists in vocational education, it is interesting to note the growing interest of the general educator in the need for greater expansion of vocational education. It seems that as he observed and participated in

¹"Report of the Committee on Resolutions," *Proceedings of the National Education Association*, 1920, p. 25.

²Owen, William B. "Report of the Commission on the Reorganization of Secondary Education," *Proceedings of the National Education Association*, 1921, p. 165. Owen (1866-1928) was an instructor in Western Pennsylvania Classical and Scientific Institute, professor of education from 1905 to 1909 at the University of Chicago, and Principal of the University of Chicago secondary schools from 1901 to 1909. He was Principal of the Chicago Normal School from 1909 to his death. He was President of the National Education Association from 1922 to 1923, active in the Vocational Education Association, of the Mid-West, and a nationally recognized leader.

the program and saw its manifest values he realized increasingly the urgency for making its benefits universally available. Many general educators in their advocacy of vocational education during the 1920's and '30's seemed more enthusiastic than the vocational specialists, but, again and again there appeared the fear of overemphasis, a too narrow vocational training and a too sharp separation from general education. This latter idea was in sharp contrast to that of an earlier period when leaders in the field of general education insisted on relegating all vocational education to separate schools. There can be little doubt that the general educator after 1920, began to think in much broader terms and was far more realistic and democratic in his educational thinking than his predecessors of any earlier time.

The idea of expanding vocational-education opportunities seemed to play a major role in the thinking of most general-education leaders. Will C. Wood, State Superintendent of Education in California, speaking of the "insufficiencies" in the American public schools, said in 1920: "There has been insufficiency of vocational training for the millions of young people whose chief abilities and interest are with tools and other instruments of production. We are now beginning to make provision for their training under the Smith-Hughes law and part-time education laws enacted by several states. However, there is a need for great expansion of work along vocational lines."³

As the period progressed educators increasingly considered the extension of vocational education into the post-high-school period. Susan M. Dorsey, Superintendent of Schools of Los Angeles, speaking in 1923 on "The Place of the Junior College in Public Education," said: "The junior college as the training school for the university and for professional colleges is a no more significant and important institution than it is bound to become when it shall function as the *community school* for advanced study and vocational opportunity. In this role, it should be the most useful school in our system, dividing honors, if at all, only with the junior high school and that because of the greater numbers benefited by the latter.

"So obsessed have educators in America been with the idea that college training should be adapted primarily to the preparing of young people for professional or highly specialized business careers that we have been unable to see the increasing opportunities for serving society and improving our civilization by a more intelligent and generous adaptation of the educational advantages of our colleges to the actual needs of community life. The constant cry of business and

³ Wood, Will C. "The Recognition of the Relation of Education to Our National Life," *Proceedings of the National Education Association*, 1920, p. 53.

industry for trained helpers has met with no commensurate response in educational circles, not to speak of the handicap to the young life of our country in being forced to enter occupations for which no adequate preparation could be had.

"The lost motion incident to this maladjustment of education to community needs undoubtedly accounts for some of our most serious weaknesses as workers; it certainly does account for the inferior quality in point of workmanship of much of our industrial output. That anyone could just pick up the master work in bank, factory, or office without specific training has been a fatal fallacy while it has been conceded that preparation must be had for professional callings."⁴ It should be remembered that at this time California was in the forefront in the development of the junior college.

The constantly recurring doubt in the general educator's thinking as to the responsibility of the secondary school for *specific* vocational education is expressed in the *Yearbook of the Department of Superintendents* for 1928. This doubt has never completely disappeared from his thinking and explains, in part, the necessity felt by leaders of vocational education for a separate national organization to promote specific vocational education to meet the needs of youth and adults who are preparing for work in subprofessional occupations. This doubt was clearly expressed in the *Yearbook*: "Since successful living depends to a high degree upon success in a vocation, there is an insistent social demand that boys and girls of adolescent age not going beyond the secondary school be given an opportunity for vocational training. Whether this training shall be general or specific in nature is still to be determined. In some form or other the secondary school is expected to be a vocational school in the sense that it is to prepare for life activities."⁵

A persistent protestant against the movement for separate vocational schools for many years was Charles H. Judd, of the University of Chicago. Writing in 1933, he said: "Contrary to the contentions of the extremists, the experience of school systems which have organized separate technical high schools seems to justify the conclusion that the people of the United States will never be satisfied to divorce vocational training from general education.

⁴ Dorsey, Susan M. "The Place of the Junior College in Public Education," *Proceedings of the National Education Association*, 1923, p. 215-16. Miss Dorsey (1857-1946) was a teacher of the classics in colleges and later in the Los Angeles High School, where she was head of the department. She was superintendent of schools from 1913 to 1920. She made important contributions to education through writing, speaking, and through administrative leadership. She retired in 1920.

⁵ *Sixth Yearbook of the Department of Superintendents*. Washington: National Education Association, 1928, p. 40.

"The influence which advocates of vocational education have had over the general academic curriculum has probably been far less than it might have been if vocational education and academic education had been allowed to develop naturally without interference from a federal board. The tendency to relate education to the demands of modern life is very strong. If the advocates of vocational education had shown a willingness to cooperate in the reconstruction of the curriculum rather than a disposition to criticize and oppose the spread of general education, it is altogether probable that there would have been developed long ago a wholesome combination of all interests and a consolidated program of broader content than is now provided under the disturbing influence of federal interference.

"That co-ordination of the rival academic and vocational curriculums will have to be worked out is evident. Most pupils are obliged, for one reason or another, to terminate their educational careers during the high school period or at the time of graduation from high school. For such pupils it is obviously inexpedient to insist on the curriculum which was designed in the early days of the high school for pupils who intend to enter the professions. The high school has, by virtue of its new position as a part of the common school, acquired social obligations which it did not have in earlier years when it was a school for a small number of selected pupils. The discharge of these new obligations calls for a new series of courses and readjustments of the traditional course."⁶

In this statement of the case Judd overlooked the experiences of vocational-education advocates when they tried, for years, to get the "academic educators" to see the vocational needs of youth and to "cooperate in the reconstruction of the curriculum." It was chiefly the result of such experiences that drove them to obtain special federal aid and to set up special programs of specific vocational education. It was the persistent refusal of large numbers of general educators to recognize the truth of what Judd says in the last paragraph quoted above which produced the condition to which he objected. It should be said in fairness to Judd that he modified somewhat his attitude during the years following his retirement from the University of Chicago.

It is very interesting to place beside the quotation from Judd's book of 1933 the following: writing in *School and Society*, January, 1942, on "The Real Youth Problem," Judd, in attacking a pamphlet published by the Educational Policies Commission which advocated

⁶ Judd, Charles H. *Problems of Education in the United States*. New York: McGraw-Hill Book Company, 1933, p. 73.

abolishing the Civilian Conservation Corps and the National Youth Administration, first quoted the following from the pamphlet: "It will not be enough to reorganize agencies and adjust relationships between them. There must also be nation-wide reconstruction of educational programs, an effort more adequately to meet the needs of youth. If school officials are to have full responsibility for the operation and control of all education for youth, they are obligated to provide educational services suited to *all youth*. This obligation is not reduced if a youth withdraws from formal school before he is equipped for full-time employment. There will be no 'out-of-school unemployed youth' for federal agencies to educate, when schools everywhere extend their responsibilities to all young people until they are satisfactorily established in adult vocations.

"Schools generally have not as yet achieved this goal of educational service for all youth. The unprecedented growth in secondary school enrollments during the past thirty years, and especially the great increase in the proportion of 'non-college' high-school students, have created problems which have been only partly solved. Inertia and tradition have hindered some needed improvements, particularly the development of training in vocational fields. Faulty organization of school districts, especially in rural areas, has handicapped many schools. Some have been limited by the unwillingness of the public to support a comprehensive educational program for older youth.

"In spite of these shortcomings, the Educational Policies Commission has confidence that the educational needs of youth will be better met by the schools and school people of America than in any other way. . . . "

Judd then says of this quoted statement: "Did the schools show in 1933 and 1935 the slightest insight into the youth problem or any disposition to take care of young people who were out of school and out of work? Is there any indication even now that school administrators are willing to divide the funds that they have at their disposal between the pupils who are being taught Latin, French, the short story, the drama and ancient history and the pupils who are about to leave school without skills or orientation of any kind with respect to social institutions? Can the Commission guarantee that if the C.C.C. and the N.Y.A. were abolished tomorrow and abundant federal funds were given to American high schools, the ninth grade would be reformed by the elimination of required algebra and hair-splitting English composition, subjects which utterly destroy the intellectual enthusiasm of thousands of young Americans and set them adrift in a world where

they must live but for which the schools have in no measure prepared them?"⁷

It must not be inferred, however, that Judd changed his views concerning the character of the vocational education which he felt was needed by modern youth. His opposition was never to vocational education *per se* but only to what he regarded as a too narrow type of such education and to the administration of this phase of education as provided by the "Smith-Hughes" law. In his Sir John Adams Lecture at the University of California in 1942, he said: "Modern technology in war and in peace has wrought vast changes in the adaptation of man to the world and to his fellow-men. The problem which faces the schools today is the problem of preparing individuals for life in a technological civilization.

"Under the stress of unpreparedness, a great deal of vocational training which is being given today is of a very narrow type. Workers are hurriedly being trained to perform single operations which can be mastered in very short periods of time. Even before the war the difficulty with vocational education was of somewhat the same order. Boys and girls were turned into specialists with skills of comparatively limited range. Technical courses were open to criticism because education, properly conceived, should broaden one's ability, not merely intensify it in a single line. Trade training, as it has been conducted, has not given learners the versatility and inventiveness that production work should cultivate. It is little wonder that the teachers of literary subjects and even the teachers of the natural sciences were opposed to the programs set up and followed by their colleagues in trade courses and courses in agriculture. The vocational education of the future must be truly educative.

"Vocational education can be made, and should be made, a wholesome part of the schooling of every young person. This is a technological age. The problems of society will be solved only when there is general, intimate, and sympathetic understanding of industry and agriculture. Furthermore, vocational education furnishes the best possible means of teaching the essential facts about human evolution. Civilization was created through invention. It is a curious fact, when one comes to think of it, that the schools have never given pupils an understanding of the importance of invention. The exercises of the schools have too often been of a type which destroys initiative and makes learners conformists rather than aggressive participants in the movements of progress. Courses in invention and in the natural

⁷ Judd, Charles H. "The Real Youth Problem," *School and Society*, 55:29-33, January 10, 1942.

sciences which explain the nature of modern technology, coupled with courses in vocational education, are among the most promising lines of emphasis which are sure to characterize the schools of the future. Vocational education, when properly organized, is an essential element of general education. It has come into the schools to stay. It will be greatly expanded.”⁸

This writing is Judd at his best, both in content and in English style, and doubtless epitomizes more accurately than any other available statement, his real attitude toward vocational education as a phase of American education.

The educator of the 1870's and '80's was primarily concerned with preparing the youth for the responsibilities of civic, social and economic life by means of developing individual culture, by so educating the youth “that his life is made radiant by the love of the society of wise and virtuous men, of all that is beautiful in nature and art, and by the constant companionship of noble thoughts.” The educator of more recent decades has tried to achieve the ends by means of specific training in the knowledge and skills required for successful living in modern social and economic life with all its exacting demands upon skill and social understanding. This underlying concept of education seems to be one of the most marked characteristics of this more recent period of educational thinking. It is clearly exhibited wherever the general educator expressed his thought concerning vocational education. The contrast between earlier and present-day educational thought seems most striking at this point. The remaining examples of thinking about vocational education make this attitude clear.

In a study fostered by the Regents of the University of the State of New York, known as *The Regents' Inquiry*, the volume called “High School and Life,” by Francis T. Spaulding, in the section “Proposals for an Improved Program,” the author said: “Finally, the secondary school curriculum should take positive account of the need on the part of most high school pupils to get and hold jobs once they are through with their schooling. *For every pupil who is to complete his formal education in that school, each secondary school ought to provide a necessary minimum of definite preparation for a vocation.* In the case of girls who do not expect to earn their livings outside the home, this minimum may perhaps be restricted to training in the management of a household. For other pupils it ought properly to include experience with the basic operations of various kinds of jobs, through which these pupils may become used to adapting themselves to differing require-

⁸ Judd, Charles H. “The Future of American Education,” *The School Review*, 50:621-28, November, 1942. (Reprint of the Sir John Adams Lecture, University of California.)

ments and accustomed to learning on the job; experience in getting along with fellow workers and superiors under job conditions; and enough specific training in a salable vocational skill to give each leaving pupil the chance for a foothold at the bottom of a recognized occupation. In addition the high school ought to provide young people with some fundamental understanding of the social problems inherent in vocational employment. No boy or girl ought to leave school without knowing, for example, about organized labor and the part which it plays in various occupations, or about the working conditions created by the growth of large-scale corporations and combinations of employers. With respect to skills and understandings both, the high school curriculum ought to furnish each boy and girl who is going immediately to work, with the background which is clearly necessary for every beginning worker who is to be in any sense a master of his own vocational fate.

"High schools ought not, however, to try to make boys and girls who have never had successful vocational experience into highly skilled craftsmen. The schools' responsibility to vocationally untried young people is to give them a start, not to make them immediately ready to compete with experienced workers. Moreover, the school needs to recognize that, for beginners particularly, vocational adaptability is likely to be more important than highly developed specialized skill."

This last paragraph is a typical example of the type of thinking so often found among general educators when dealing with practical education problems. It contains the ancient error of generalizing broadly without sufficient factual basis for so doing. The author, seeming to realize to some extent the weakness of the statement, said in a footnote: "The degree of specialization which should be aimed at in the high school vocational courses must obviously be determined by the abilities required of beginning workers in particular fields. Requirements may differ from time to time, from one occupation to another, and even to some extent from one city to another. The vocational training program ought, therefore, to be developed on the basis of continuous surveys of local needs."

The report suggested also the need for "preparation for vocations requiring a more extended period of initial schooling than can be completed by the end of the twelfth grade, but demanding less training than that offered by established higher institutions."⁹

President Edmund Day of Cornell University, speaking on "American Youth Looks at Its Future," said in 1939: "The attitude of youth toward the schools is widely variant, of course, and reflects a great

⁹ *The Regents' Inquiry, "High School and Life."* New York: McGraw-Hill Book Company, 1938, p. 269-71.

diversity of youthful interests, attitudes, and aspirations. It is safe to say, however, that by the time they are well along in their teens, the great bulk of our young people wish to have school programs exhibit clear and fairly direct bearing upon the life interests of the learners. What are some of the primary roles these young people shortly expect to be playing? Obviously they wish to become workers or producers — in other words, job holders; the great bulk of them wish to become home and family builders; less uniformly and less fervently, they wish to be effective citizens. Here are approaching responsibilities for which they would like to prepare. They are not inclined to accept the doctrine that no specific preparation is in order, that the only suitable course of training is indirect and is solely concerned with the cultivation of intellectual and moral virtues.

"No thoughtful person is going to question the importance of these intellectual and moral virtues. No one is suggesting that society try to dispense with these virtues. On the contrary, everyone wants a more ample supply of them, and the only serious question is how to get it. One answer is to return to the traditional disciplines; the other is to reorganize the curriculum with specific reference to the evolving life interests of the learners. It is reasonably clear that youth leans to the latter view of the matter. By some this is thought to be due to a softening of the intellectual and moral fiber of youth. Frankly it does not seem to me that this is a fair interpretation. We must realize that the secondary school is dealing with a new kind of school population, and that young Americans of secondary-school age are facing a new kind of world. It would be surprising, indeed, if, under these circumstances, no change of school program were in order.

"Youth, then, is somewhat critical of the American school of today and is looking, rather confidently I believe, for certain changes for the better. Without seeking any softening of the school program, youth expects the American school of the future to cope more successfully with vocational training and adjustment, with preparation for home and family life, with training for effective citizenship in a truly democratic America. Here is a challenge from youth to the schoolmen that cannot be brushed aside."¹⁰

During the closing years of this one hundred years of growth in the concept of vocational education as a school enterprise the emphasis was on the economic and social significance of such education and the urgent need for expansion of the existing program. Many leaders continued to be concerned over the proper relation of vocational to general

¹⁰Day, Edmund. "American Youth Looks at Its Future," *Proceedings of the National Education Association*, 1939, p. 272-73.

education, over the problem of general versus specific vocational training, over the question of special federal aid, over the "encroachment" of federal control of education, over the "decline of culture," and most of the other concerns of educators throughout the period of this survey of educational thinking. But, the need for increasing and strengthening the offerings in vocational education in the public schools was the idea most often expressed by responsible leaders from the middle 1930's to the close of 1945.

In an address before the National Education Association of 1939 Mary B. McAndrew, Superintendent of Schools, Carbondale, Pennsylvania, said: "There was expended in this country during 1937 by local, state, and federal governments practically \$30,000,000 for vocational education, or nine-tenths of one per cent of the total amount spent for public education. There was a student body of 1,096,000 which made the average cost per student about \$28. From now on our practical problem should be to increase this expenditure, establish all-day or part-time and evening classes for the untrained laborer whether he be youth or adult. He will then be able to take a new job when offered.

"The human loss in this country has been great because society has failed to provide vocational re-education. This cannot be done in a day or a year, but the sooner it is begun the better. I know some will argue cost as a reason for putting off this great humanitarian task, but will it not be wise economy to spend a few dollars more to train a worker better, rather than permit him to become a charge upon the community at a much greater cost?

"There are many manufacturing concerns that have their peak season. When the peak rush is over many employees are dropped and are forced to seek employment in other fields. Employees cannot change from one factory to another overnight without some kind of training. If vocational schools were convenient to the workers many of them could be trained in a short time to make satisfactory adjustments. This, in my opinion, would go far toward relieving the unemployment situation and would materially aid in carrying on the country's business."¹¹

One of the most notable expressions of the thinking of the general educator about vocational education is found in the report of the Educational Policies Commission on "Education and Economic Well-Being in American Democracy." The report was written by John K. Norton, and an extended quotation from it is justified in this study. Only brief selections are presented which seem most clearly to indicate the thinking about vocational education. The report says, in part: "The indus-

¹¹ McAndrew, Mary B. "Human Resources and Their Development," *Proceedings of the National Education Association*, 1939, p. 258-59.

trial revolution, resulting in history's most dramatic increase in economic productivity, may be epitomized in the fact that a growing percentage of trained workers have used more and more effective methods of work. A high output per worker is generally associated with a high level of vocational intelligence and skill — not the reverse. Census data show that the growth of productivity in the United States has been paralleled by a reduction in the proportion of unskilled laborers. Instead of a great mass of unskilled labor, modern economy more and more demands semi-skilled and skilled workers. In the fields of manufacturing between 1910 and 1930, the numbers of skilled workers increased most rapidly, semi-skilled the next, and unskilled least rapidly.

"During the depression unemployment has been greatest among unskilled laborers.

"The most immediate and apparent economic outcome of education is where it provides specific training for a trade or other definite vocation. Skilled workers generally produce more than semi-skilled and still more than unskilled. Specific vocational education may be provided by a variety of agencies — trade schools, public and private, as well as industry itself. The important thing, however, is that the provision of such training has positive economic effects." The author argued, further, that the education of the economic worker must not be too narrow. Both his own welfare and progress and that of industry, business, and other occupational areas depend upon the degree of education possessed by the worker.

"Education in the past has contributed in providing specific vocational skills as well as general economic understanding essential to the existence and highest productivity of an economy characterized by far-flung organization, specialization, and power-driven machines. In the future it can and should make greater contributions to productivity in these areas. Workers with trade skills and economic intelligence are consistent both with democratic culture and maximum productivity.

"It is an accepted tenet of economics that the ability of labor to secure the training needed to transfer from crowded and low-paid occupations to those less crowded and better paid tends to increase the national income. When workers of energy and capacity must continue in low-paid common labor because of inability to secure training requisite to entering higher-paid callings, the national income tends to decrease.

"Education in the past has assisted in thinning out the over-crowded ranks of unskilled labor by increasing the proportion of workers in skilled and professional occupations. Its contribution in this area in the

future should and can be made far more effective. This vital economic responsibility is recognized by many leading economists.

"Education for occupational efficiency should be conceived in broad, rather than narrow, terms. Vocational and general education are so closely related that they are phases of a unified process. The long look should always prevail. The clash of economic interests, sometimes narrowly conceived, can be adjudicated most justly and courageously, when the purposes of education in this area have been intelligently and broadly formulated.

"The best results are likely to be obtained when schools and colleges develop cooperative relationships with other agencies, properly concerned with occupational education. Cooperation with industry in providing adequate training and retraining is essential.

"Occupational education can be built only on a foundation of accurate, comprehensive and continuing information. The scope and complexity of vocational life makes this essential. It is the responsibility of education, in cooperation with other agencies wherever feasible, to assemble facts as to the requirements of all types of vocations, as to occupational trends and shifts, as to wage scales, conditions surrounding work, means of securing employment, facilities available for occupational retraining or upgrading, and similar types of information. This requires occupational research affecting national, regional, and state conditions and trends. It demands that each community maintain continuous surveys of local occupations and their requirements as a basis for a program which takes account of unique and peculiar needs."¹² This is followed by very specific commitments as to the responsibility of the school for vocational education, and they are in very striking contrast to the opinions of E. E. White *et al.* of the early 1880's.¹³

Over against Norton's conclusions it is interesting to place a quotation from Floyd Reeves, writing on "A Program of Democratic Education for the Postwar Period" in 1944. He said, after discussing the importance of work experience as a phase of education: "Youth need vocational education as well as general education. Working with tools may have both general-education and vocational-training values. Many high schools in the past have placed too much stress on specialized vocational training. The present emergency has clearly demonstrated that specialized training for most occupations can be given most effectively through training on the job, with the schools devoting their atten-

¹² "Education and Economic Well-Being in American Democracy." Washington: The Educational Policies Commission of the National Education Association and the American Association of School Administrators, 1940, p. 10-12, 14, 92-93.

¹³ See Chapter IV.

tion primarily to general education, to broad general training in the use of tools, to the development of a work-study program, and to providing related training to workers on the job."¹⁴ This is one more example of generalizing about the whole field of vocational education from conditions obtaining in a single phase of one division only of the total field, namely, that of the semiskilled worker in industrial education.

John Dale Russell and a group of associates writing on vocational education for the Advisory Committee on Education, 1938, said: "In earlier times preparation for a vocation was largely a private affair, carried on in the home or by an apprenticeship system. In the past half century, under the increasingly complex organization of industrial society, the responsibility for much of the vocational preparation has been transferred to the school system. It should be emphasized that this is a task which the schools themselves did not originally seek. Pressures from outside the school system have been largely responsible for the introduction of programs looking toward the preparation of young people for vocational efficiency. Enough experience has now accumulated to demonstrate the feasibility and the efficiency of providing in schools some of the training required by a large number of vocations.

". . . The same line of reasoning that has been followed in developing the system of general education under public control and support seems to point toward the desirability of affording opportunities for vocational education under public auspices. The fact that general and vocational education should not and cannot be separated in an effective program for the individual child inevitably means that the agency responsible for conducting the one must also conduct the other phase of the educational service. Vocational education, like all other forms of education, is an individual matter in so far as the learning process is concerned, but society as a whole has a most important stake in the enterprise. Society cannot leave to the chance interests of individuals or corporations the provision of this training that is so vital to the general welfare."¹⁵ The use of the word "child" raises a question in the reader's mind as to just how the author was visualizing vocational education in his thinking. Vocational education in any specific sense is not concerned with "children" and the failure to grasp this obvious fact has frequently misled the general educator in his thinking about vocational education, as this survey of his thinking clearly

¹⁴ Reeves, Floyd. "A Program of Democratic Education for the Postwar Period," *Proceedings of the Thirteenth Annual Conference for Administrative Officers of Public and Private Schools*. Vol. VII. Chicago: The University of Chicago Press, 1944, p. 103.

¹⁵ Russell, John Dale, and associates. "Vocational Education," *Report of the Advisory Committee on Education*. Washington: Government Printing Office, 1938, p. 176-77.

demonstrates. One can not object, however, to the proposition that "pressures outside the school system have been largely responsible for the introduction of programs looking toward the preparation of young people for vocational efficiency," and that vocational education is a public school responsibility.

One of the most clearheaded thinkers about education during the period under consideration in this section is William C. Bagley. In an editorial in *School and Society* in 1944 he said: " 'As education goes democratic, it must go substantially vocational.' This prediction was made by Edmund E. Day, president of Cornell University at the University's 66th annual commencement June 25 [1944]. And *a propos*:

"Many articles have recently appeared in *School and Society* dealing with the present status, the past achievements and shortcomings, and the future prospects of liberal education. Not a few of the writers have either expressed or implied a fear that postwar developments will involve an increased emphasis on vocational education to the neglect of liberal education. Others have taken the position that a great democracy needs both types of education and that the United States can provide both in a just and needful proportion.

"The present writer is decidedly of the latter opinion. He would wish, indeed, to see in the immediate future, and in connection with the plans now in the making for veterans' education, a marked expansion of vocational education, and especially a multiplication of its agencies to cover a far wider range of breadwinning activities than have hitherto been prepared for through the organized processes of selection, education, and training.

"For more than thirty years, the present writer has cherished an ideal that he has made bold to label 'Occupational Democracy.' The ideal is based upon the following postulates:

"1. In a truly democratic social order, there should be no invidious distinctions among socially essential (or otherwise socially useful) occupations. More specifically, there should be among such occupations no "humble" callings, there should be no "menial" tasks.

"2. The eradication of these age-old distinctions can be brought about through a proper organization, development, and direction of general education and especially of vocational education.

"3. In so far as possible, every form of socially essential and socially useful work should be regarded as, at basis, a profession or a fine art or a combination of the two. Material rewards, while important, should, as motives, yield first place to pride in good workmanship, a keen and sincere desire to render efficient service, and satisfac-

tion in activities that are 'creative' in the sense that one can read some part of one's self, one's individuality, into the product of one's work."¹⁶ In further paragraphs Bagley recognized basic differences in the character of different vocations, but he thought his ideal could be realized.

In another editorial in the same journal of November 25, 1944, commenting on President Hutchins' attitude toward vocational education, he first quoted in part from his speech delivered at Dubuque University: "The thing to do with vocational education is to forget it. As the war-training programs in industry have shown, industry can train its hands if it has to, and it can do it at lightning speed. The task of the educational system is not to train hands for industry, but to prepare enlightened citizens for our democracy and to enrich the life of the individual by giving him a sense of purpose which will illuminate not merely the 40 hours he works, but the 72 he does not. . . ." Bagley then remarked: "Is there not, however, a fourth factor¹⁷ belonging to 'the perfection of human nature,' without a due consideration of which the desired 'integration' will be sadly incomplete — namely, the individual's occupational life, his daily work? Granted that, of his 112 waking hours, the 72 during which he does not work need illumination and enrichment and a sense of 'purpose,' does it follow that for his 40 working hours, the skills with which the 'training programs in industry' may equip him will provide all the illumination and enrichment and sense of purpose in respect of his occupation that he needs if he is to live a truly 'integrated' life? Is the worker as a worker, merely an automaton, merely a 'hand,' and must he seek all his joys, satisfactions, and opportunities for creative effort outside his working hours? Vocational education of the right sort, administered in cooperation with business and industry but under truly educational ideals, can fill this gap in the scheme of 'integration.' As the present writer has already pointed out in these columns, the important task of vocational education is, as far as possible, to make every form of socially essential or otherwise socially useful work a fine art or a profession or, through the application of science, a combination of the two. This, in his judgment would be a real step toward a real 'integration.' Dr. Hutchins' position seems not only not to recognize this as a desideratum but to be decidedly, even militantly, opposed to it. He leaves us, indeed, if we are to accept his reasoning, with an intensification of one of the cruel, age-old dualisms, efforts toward the resolution of which ought not to be impeded at a juncture in human affairs that is peculiarly favorable for the

¹⁶ Bagley, William C. "Vocational Education as the Key to 'Occupational Democracy,'" *School and Society*, 60:52-53, July 22, 1944.

¹⁷ Hutchins in his speech refers to "the three factors belonging to the perfection of human nature" — they being, science, philosophy, and religion.

permanent eradication of time-dishonored prejudices and mores."¹⁸ It might be added that Hutchins' thinking would fit far more appropriately into the pattern of educational thought of 1870 than of 1944. One wonders what his conception of democracy really is, and whether he regards public education as having any social obligations to the masses of the people. Furthermore, it is evident that his conception of vocational education, as being concerned only with "factory hands," is too narrow and uninformed to carry any weight in educational discussions of that field of education.

George S. Counts, in his book *Education and the Promise of America*, wrote: "Induction into the vocations of this industrial society should constitute a third emphasis of the educational program. The initial task here is to acquaint the young with the vast range of occupational opportunities in industrial society. Only by a systematic survey of the possibilities can the individual find his way among the extraordinary complexities of the economy. To be sure, as the child grows to maturity he learns a great deal without any organized instruction. But his horizons will be limited by the class into which he is born and by the locality in which his lot is cast. For youth a comprehensive program of vocational training, embracing all the important occupations, should be made available to all. In this process of guidance and training, provisions should be made for obtaining genuine work experience under the conditions of production for the market. Quite apart from its vocational value, this experience should be recognized as an indispensable element in all education. Serious work, as our life in the agrarian age demonstrates, makes a unique contribution to the moral and social development of the individual. The program throughout should stress the dignity of labor in all its forms and grades and the deep moral meaning of the source and means of livelihood."¹⁹

In this selection of significant expressions of the thinking of the general educator during the closing period of this survey of thought about vocational education (1920-1945), no more comprehensive, clear-cut, and important utterance could be found than an article by Alexander J. Stoddard, Chairman of the Educational Policies Commission and Superintendent of Schools of Philadelphia. This article, quoted here only in part, was based on a notable address delivered in December, 1944, before the American Vocational Association, meeting in Philadelphia. It seems to epitomize the best thought of the leading thinkers in public education in America today regarding vocational edu-

¹⁸ Bagley, William C. "The Attitude of President Hutchins Toward Vocational Education," *School and Society*, 60:339-40, November 24, 1944.

¹⁹ Counts, George S. *Education and the Promise of America*. New York: 1945, p. 132-33; a Kappa Delta Pi publication, quoted by permission of The Macmillan Company, publishers.

cation of less than college grade, and was expressed by one responsible both as a leader of thought and as a general administrator of an extensive program of vocational education.

He wrote as follows: "In its broadest sense all education has vocational implications. Some phases of the educational program are concentrated more directly on vocational objectives than are other phases. It is nothing short of academic shadow-boxing to argue for or against vocational education as such. What is commonly regarded as general education, or education designed to acquaint the individual with the accumulated culture of the race or to enrich human existence through equipping man with the heritage of wisdom developed through the ages, also has real significance in equipping persons for certain types of vocations."

After pointing to the fact that the early colleges in this country "were designed primarily to prepare preachers for the churches, a vocation of high order," and that "the medieval universities were concerned largely with vocational education in medicine, law, and theology," he said: "There is not one kind of education that prepares a person *to make a living* and another kind that prepares *for living*. That is, there is not an education that fits one exclusively for the marketplace and another that fits one for the life of the gentleman. The specifics involved may differ somewhat but the distinctions are rapidly disappearing between the practical every-day affairs of the commercial establishment, the industrial plant, the banking house, where men earn their livings, and art, music, drama, and other avenues through which men pursue happiness and the so-called inner satisfactions of life.

"The real question is not whether there should or should not be vocational education. It is rather the extent to which the facts, knowledge, and skills involved in certain processes of service should be taught in school or college or left to apprenticeship or direct experience on the job. The question is further complicated by the fact that attitudes, appreciations, and ideals are also involved with the service processes, resulting properly in a mixing of the civic, cultural, and social with the practical aspect of the service."

After thoroughly developing this proposition he continued: "Vocational education and what might be called general or academic education do not differ, or should not be regarded as differing, in the respect in which they are usually regarded as being different. The former is not 'training of the hands' and the latter 'training of the brain.' The former is not for those only of low ability, capable only of learning how to work with their hands. Everyone ought to be edu-

cated vocationally, according to his ability and his occupational desires, and everyone ought to be educated for citizenship, for effective living as an individual, and for successful participation in the society of which he is a part. In other words, all Americans should be prepared adequately for productive service, that is, for employment at useful occupations, and all Americans should be prepared so as to enable them to live richly and effectively in accordance with our cultural heritage. Every American should know how to make a living at a useful occupation and also be able to pursue happiness with some assurance of a reasonable expectation of success."

In elaborating on what a total program of education should be he wrote: "The vocational education program of our schools should be pushed upward to the post-high school period as far as possible in accordance with the economies of employment then prevailing. The curriculum should be expanded to cover the whole range of teachable vocational areas, from the highly complicated to the very simple. Long and short courses, both unit and sequential, would be involved. Vocational education should be regarded as the common right of all the people. We should not think of general education for some types of our people and vocational education for other types. Rather we should think of *all* our people having equal opportunities, according to their abilities to acquire both the common integrating facts, knowledge, and skills essential for effective living and the facts, knowledge, and skills directly related to productive employment."²⁰

Thus the thinking of the general educator, with reference to vocational education, has come, during a hundred years, by slow, and often painful steps, from the aristocratic concept of "elevating the laboring classes" by means of some sort of mystical imparting of "culture," or by providing a special, separate school fitted to their "humble needs" and "inferior powers," to the democratic concept of *equal* opportunity for *all* to acquire both the general and vocational education they desire and need, at public expense and without discrimination, or distinction as to "high" and "low," "superior" and "inferior." "Education for making a life" *vs.* "education for making a living" no longer makes sense in the complex, industrial, scientific, and democratic society of 1945 in the United States. At long last the best thinkers among general educators see this clearly and that fact promises much for the rapid progress of all education in the years immediately ahead.

²⁰ Stoddard, Alexander J. "The Vocational Emphasis in Education," 1945 *Convention Book*. The Illinois Vocational Association, 1945, p. 6-9.

CHAPTER VIII

CONCLUSION

TO ATTEMPT FULLY to account for the ideas of any individual mind or group of individual thinkers is a futile undertaking, because of the complex, unpredictable, and unknown factors which influence thinking. It is equally true that thinking does not occur in a vacuum and is always affected by history, the contemporaneous environment, and by fears and desires with reference to the future. Hence, in considering the development of the concept of vocational education in the thinking of the American educator from 1845 to 1945, one can not ignore the educational concepts of preceding years, the political, social, economic, and intellectual forces operative over that century, and the ideals held by leaders for the future education of American youth.

At the beginning of the period reviewed, the educator mind was still almost wholly dominated by the educational concepts inherited from England and, to a less degree, from continental Europe. These concepts were essentially aristocratic in character, involving a definite distinction between the lower or "laboring" class and the upper or "intellectual" class. This underlying idea did not fit into the growing consciousness that democracy is, after all, something more than a form of government. America, beginning chiefly as a political democracy, was slowly and painfully becoming more democratic socially, as the decades after the founding of the Republic progressed. By 1845 the inevitable tensions produced by an aristocratic theory of education operating in an educational system supposed to serve a democratic society were becoming too obvious to be ignored. Hence, it is not surprising to find a growing dissatisfaction with the schools. Only a few educators were able to understand the social implications of the traditional educational program, which, for the most part, ignored the needs of the masses of the citizens and stubbornly tried to maintain the thesis that the best education for the best minds of the past was the best for all, and that the schools were not responsible for those who could not profit from such education. This position was not so stated, but it is implicit in what educational leaders said, and particularly in what they did. As the middle of the century approached, however, the rapid expansion of the economic life of the nation and the slowly growing realization of some of the larger implications of democracy were pushing to the fore the educational needs of those who did the physical work of the nation. The growth of population centers with the consequent growth of competitions and the rising standards of achievement, together with the depletion of the soil in the older agricultural areas, the growing need for

increased production, and the growing awareness of the need for a more intelligent application of the physical sciences to the daily work, all served to bring about a demand for some sort of vocational education to be provided by public agencies.

By 1845 the question had arisen: "Why should not the laboring classes be as well prepared for their work by the schools as the professional classes are?" The idea of the agricultural and mechanical college was an outgrowth of the attempt to provide a satisfactory solution of the problem suggested by the question. The general educator of the time, however, was not able to think in the terms required of those who could give a satisfactory answer to the question raised by the publicist who thought in terms of the needs of the common man. He could only restate the problem in his own terms; namely, "How can we uplift the laboring classes by taking 'culture' to him? If he but acquire culture he will become a better worker and will thereby prosper. Hence the problem after all, is solved by reaching the laboring class with what we have always offered in the schools." As the fundamental fallacy of this view became increasingly apparent the educator conceived the idea of making the cultural subjects more "practical," thereby causing any form of specific vocational education to be unnecessary in the schools. The naïvete of this notion was not as apparent then as it is now, and the earnestness with which it was urged is difficult to understand by the modern reader of the educational writing of that period. It was characteristic of the times that while much was said about making the traditional subjects "practical" there is little or no evidence to indicate that anything was done about it. Many educators never gave up the idea as a proper solution of the problem created by a popular demand for vocational education; and it is even today frequently proposed as meeting the full responsibility of the school for providing vocational education.

The realization of the growing need for teaching the developing sciences which underlie the agricultural and industrial occupations was a feature of the period from 1845 to 1875. This idea was conceived chiefly as a new form of college or post-preparatory-school training and in all cases as something to be given *in addition to* the traditional classical education. It eventuated in the polytechnic institutes and the land-grant colleges. The impossibility of conceiving a totally new type of education predicated upon ascertained vocational needs, resulted in the mere grafting on to the traditional curriculum a few "practical" courses, and accounts for the situation described by Henry Pritchett¹ in his comment on the early years of the history of the land-grant col-

¹ P. 18, above.

leges. However, it seems clear that the establishment of those two types of schools gave a great impetus to the idea of specific vocational education as a school enterprise. They had the value of providing concrete examples of a different kind of educational institution than the traditional one, and they provided something more concrete to think about than mere words and theories about practical forms of education.

After 1875 the nation found itself in one of the most remarkable eras of economic expansion in history. Towns became cities almost overnight. Industry was growing at a rate hard even now to imagine. A veritable flood of startling mechanical inventions appeared and the interest of the people which, during the earlier part of the century, had been centered on political questions was now directed toward economic, and particularly industrial, matters. The changes of economic and social conditions came much too rapidly for slow-moving, conservative, educational procedures to keep step. The schools were, in the 1870's and 1880's, still educating youth for the life of the 1820's and 1830's. Such a state of affairs inevitably creates tensions which force thinking about radical changes in the schools on the part of the public; and eventually the educator, whether he wills it or not, is forced to consider changes in the schools. He characteristically began his consideration with the idea of making some slight change in the curriculum which would provide "general" vocational training for the industrial vocations. The industrial aspects of the problem were the most pressing and he was unable, at that time, to consider fundamentally the whole problem of vocational education. His basic philosophy of education, involving, as it did, the concepts of *common* education as the whole responsibility of public education, and of faculty psychology and "formal discipline," made a clear-cut consideration of a general reorganization of the curriculum and the provision of obviously needed specific vocational education by the public schools practically impossible.

Throughout this period, labored efforts to evade the real problem presented by the actual conditions of the life surrounding the school were constantly made. Vehement defenses of the traditional curriculum and of "culture" were common, and a desperate effort to visualize some sort of "fundamental" vocational preparation which was "basic to all vocations" was a characteristic feature of the educational thinking of the era. The outside pressures, however, were too great to be easily pushed aside by the inability or unwillingness of the general educator to think realistically, and many came to see the necessity for accepting the idea that specific vocational education must be made

available. They could not accept such education as belonging to "common" education, hence the more realistic thinkers called for special separate vocational schools, and, if possible, to free the "regular" public schools of responsibility for vocational education. The whole period is marked by confusion of ideas, much superficial thinking, and by childish attempts to evade the real issue. There is evident a real effort on the part of a few clear thinkers in this period, who were keenly aware of the gap existing between the schools and the life of the nation, for which the schools presumably were preparing the young, to make fundamental changes in the schools. These men bitterly criticized the purely academic character of the schools and pointed to the need for changes that would definitely and specifically prepare boys and girls for the occupational life of the new day. They were, however, a minority and little was accomplished toward developing vocational education in the public schools.

The last five years of the old century saw little progress in thinking about vocational education. By 1885 manual training was a widely accepted idea in educational thought in this country, and since it was introduced during the time when educators were thinking hopefully of some type of "general" or "basic vocational education" it was enthusiastically accepted by many as the very thing for which they were looking. Others saw in it the advent of the kind of education most destructive of "culture" and a thing to be fought with all their powers. Hence, the thinking of the general educator concerning vocational education during the closing years of the nineteenth century was almost completely preoccupied with the controversy over the introduction of manual training into the common schools. By 1885 the advocates of manual training had abandoned all discussion of it as vocational (or "technical") education and argued rather for its cultural values. The opponents continued, however, to fight it as vocational education. The thinking on both sides was plagued by a hopeless confusion in terminology, and it is probable that much of the apparent conflict of the period is due to this confusion of terms rather than to clear-cut opposition of ideas. Generally speaking, the general educator entered the new century still opposed to specific vocational education in the public high schools, though his ideas had been greatly modified in the direction of a less "bookish" type of curriculum, as was exemplified in the rapidly growing acceptance of manual training and "domestic science."

During the early years of the 1900's there was a rising tide of advocacy of vocational education in the public schools among taxpayers and the general public. The economic developments, which had forced

attention to the question in the first place, were cumulative in their effects, and by the middle of the first decade of the century organized efforts began which were designed to force the public schools to train boys and girls, and others who needed training, for the skilled vocations of less than professional level. The most significant of the organized movements was that of the National Society for the Promotion of Industrial Education, organized in 1906. This organization was composed of outstanding men in industry, business, labor, and education. Its efforts were directed, in the outset, not at the schools directly, but toward public opinion and particularly toward organized economic groups. Its efforts eventuated, after a little more than ten years of continuous activity, in the Federal Vocational Education Act, popularly known as the "Smith-Hughes" law.

The general educator, with the exception of a few national leaders, took an inconspicuous part in the controversies over the setting up of a national program of federally-aided vocational education. The apparent lack of opposition from general educators is probably due, in part, to the overwhelming pressure from outside the schools and partly to new fundamental concepts which came to prevail in the educator mind during the early part of the century. A new psychology came into the pattern of educational thought which served to undermine earlier concepts, which were basic in the philosophy of secondary and elementary education. A new and more democratic educational philosophy was also rapidly winning acceptance. It was more "child centered" and "social" in its basic concepts than the earlier, inherited philosophy. It was more nearly indigenous to this new American civilization and less an imported European product. It involved a recognition of the necessity for the curriculum to represent the life for which children were being prepared, and it emphasized individual differences and individual needs. Furthermore, the rapidly changing character of the high-school population, from that of a relatively small, select body of youth to a very large, heterogeneous group of young persons with the most diverse backgrounds, capacities, characters, and purposes, vitally affected the school situation during the first quarter of the twentieth century. These and other influences had changed greatly the thinking of the general educator concerning vocational education during the years following 1900. The narrow "culturalists" continued to complain and warn of approaching destruction of all that is best in the world, as they do today; but, for the most part, the general educator came to accept specific vocational education as a definite responsibility of public education and gave his attention to questions having to do

with its proper administration and its relationships to other phases of public education. A further characteristic of the thinking of this period was a growing emphasis upon the economic significance of education which inevitably enhanced the importance of vocational education in the thinking of the educator and in the program of studies.

During the years from 1900 to 1920, however, the major preoccupation concerning vocational education was the question of its relationship to the other phases of the total education program. Educators were also deeply concerned over the controversy, centering at first in Illinois, between the advocates of a "dual system" and those who held to the "unit system." The leaders of the movement to establish a distinct system of vocational education articulated with, but separately administered from the general education schools, lost in their effort to establish a dual system in Illinois. The controversy, however, stimulated much careful thinking that helped to clarify the whole situation with reference to the rapidly developing vocational-education movement. The question raised was not finally settled, as many thought it was, and entered again into the discussions following the passage of the Smith-Hughes act; and it reappeared in connection with the N.Y.A. and the W.P.A. schools of a later period. On the whole, the first two decades of the new century saw the acceptance by the general educator of vocational education as a responsibility of the public secondary school program.

There was evident throughout the closing quarter of the century considered in this study, two somewhat conflicting ideas in the thinking of general educators, namely, on the one hand, an intensification of the concept of the economic and social responsibility of public education, and on the other, a growing insistence upon the guarding of the purely cultural features of the curriculum. The latter trend in thinking seemingly was due, in part at least, to fears created by the growing popularity of vocational education and the pressures from both outside and inside forces for a greatly enlarged program of vocational education. In general, however, the major emphasis among general educators was upon expansion of the vocational-education program, and, to the present, that seems to play a large part in the thinking of educational leaders. A phase of the interest in enlarging the opportunities for vocational education was a widespread resentment toward what was referred to as "federal interference" or "federal dominance," while at the same time there was recognition of the inability of the local and state governments, unaided by the federal government, to meet the needs of the people for vocational education.

It is probable that the enlarging concept of democracy in education, which was apparent during the period, played an important role in the efforts to "equalize opportunities" by expanding the vocational-education programs.

One further feature of the thinking of the last twenty-five years of the century under review was the reappearance of an earlier notion of developing some sort of "broad, fundamental, vocational education" rather than of providing numerous forms of specific vocational training. Many general educators still exhibited a nostalgic sort of wishful thinking for a simplified, "common," "generalized," solution of the very complex problem of public education to meet the needs of modern life. This feeling doubtless was due, in part, to the persistence of the disciplinary concept of the function of school instruction, which was based upon traditional faculty psychology, and faith in the doctrine of the general transfer of training. Notwithstanding the advent of modern psychology, during the century under review, and the fact that it is in conflict with practically all the basic tenets of faculty psychology, faith in the doctrines of "formal discipline" and the transfer of training apparently persisted among educators, to some extent, throughout the entire period. This probably accounts, in part at least, for the persistence of some kind of "general" vocational education which would be "common to all vocations," and the reiteration expressed in many ways, that the fundamental function of the school is to "develop character and train the intellect," rather than to train for earning a livelihood. It also accounts in large measure for the enthusiasm of many general educators for manual training.

✓ Another persistent concept which was extremely slow in losing its dominant influence upon the thinking of the general educator was that the tax-supported common school should be concerned only with *common* education. This concept was an important factor in delaying the growth of the idea of vocational education as a responsibility of the public schools and its influence has not entirely disappeared to the present time.

Confusion in terminology has, throughout the history of vocational education, acted as a deterrent in its development. Such confusion doubtless is inevitable in any new field of inquiry. Vocational education is as old as human society as a practice of human beings, but as a body of knowledge to be studied and consciously applied in the work of organized education, it is relatively new. The use of the word "industrial" to mean "vocational," the word "technical" to mean "specific vocational-industrial education," and the use, by some, of "indus-

trial education" to mean the nonvocational "manual training" all served to make clear thinking difficult and discussions ambiguous and confusing. Not till the last quarter of the century studied, was any general agreement reached with reference to terminology, even among specialists in the field of vocational education. The general educator is, to this day, still somewhat uncertain of terms when discussing vocational and other forms of practical-arts education.

Gradually through the one hundred years reviewed, the concept of education as consisting of two major aspects, both essential and mutually dependent, came to be accepted by most general educators. These two aspects—general and vocational—it is now generally agreed, must be provided for all who need them, by some means. Increasingly the interrelationship of these two phases of every individual's education has become clear to most educators. That general education provides essential elements of vocational success and vocational education contributes to the development of personality and general understanding necessary for successful social adjustment finally also seems generally understood by educators. By the close of the period studied most leaders in general education had come to be interested in establishing a relationship between vocational and general education which would be most conducive to the realization of the most desirable outcomes of both.

When one attempts to review the development of significant ideas in human history there seems to emerge in most cases a sort of pattern of development. First some one man, or small group of men, possessing a high degree of prophetic insight, becomes aware of a widespread human need and a trend in human affairs which points toward the necessity for supplying that need. He, and a few followers, point out the need and advocate a way to meet it. The remedy thus advocated involves changes in accustomed modes of thinking which are far beyond the powers of the majority of his contemporaries to adopt, but the idea expressed, however distasteful to the men of his day, is planted in their thinking, often by the very opposition they make to its adoption. It then slowly grows as the need increases and the trend persists, until finally, after much controversy and many modifications of the primary proposal, it is generally accepted. This has been the pattern of development of many of the most significant concepts that have eventuated in human progress, and seems to be the pattern of development of the idea of school-administered vocational education of less than college grade in the thinking of the general educator from about 1845 to 1945.

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